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# foreign agriculture circular

## citrus fruits

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### MEXICO TO EXPAND PRODUCTION AND EXPORTS OF CITRUS FRUIT

#### Summary

Mexico's total citrus output was unusually low during the 1977/1978 and 1978/79 seasons because of adverse weather. Nevertheless, exports of fresh oranges and tangerines to the United States (the leading market) rose sharply in 1978/79 compared with year-earlier totals, mainly because of increased demand. At the same time, high prices of oranges and tangerines, coupled with a strong U.S. demand for orange juice concentrate, have resulted in an increase in plantings of these fruits and are encouraging Mexican processors to modernize and expand their facilities. Meanwhile, the boom in grapefruit plantings appears to be winding down because of low prices in both the domestic and foreign markets, as well as fear of a worldwide glut.

#### Production

Mexican citrus production has trended downward in recent years because of a drought in 1977 and a severe freeze in December 1978. The drought affected all of Mexico's producing regions but was most intense in the States of Nuevo Leon, Tamaulipas, and San Luis Potosi. The freeze was primarily concentrated in the Montemorelos-Linares citrus producing area in Nuevo Leon, and caused output in this area to fall by a third from the 1977/1978 level. The three states mentioned above plus the southern states of Veracruz and Tabasco account for the bulk of Mexico's orange, tangerine, and grapefruit production. Lime groves are concentrated in the Pacific coast states of Colima and Michoacan.

The most recent official Mexican Government production data are for 1977—total citrus output at 2.48 million metric tons, including 1,863,029 tons of oranges, 58,188 tons of tangerines, 112,086 tons of grapefruit, and 444,642 tons of limes. Trade sources place tangerine production at 125,000-130,000 tons.

Oranges and tangerine output was hard hit by the 1977 drought and a December 1978 freeze, but production is expected to rebound sharply in the 1979/80 season. By the mid-1980's orange and tangerine output could approach 2,700,000 and 175,000 tons, respectively, because of new trees entering the bearing stage and with improved cultural practices. New plantings—mainly Valencia oranges and Dancy tangerines—were heavy in the 1977/78 and 1978/79 seasons and occurred primarily in Mexico's southern zones, stretching along and near the Gulf Coast from the southern tip of Tamaulipas to Campeche. Apparently, there is little room for expansion in the traditional citrus areas in Nuevo Leon.

Grapefruit and lime trees were least affected by the adverse weather of the late 1970's because of their locations. About three-fourths of the grapefruit trees are in Veracruz and Tabasco.

The rate of new grapefruit plantings has been high since the early 1970's and production is expected to increase 50 percent from the 1977 level to about 170,000-175,000 tons by 1985. However, industry sources have indicated that new tree plantings will slow down substantially during the current season because of low prices, anticipation of a worldwide glut, and a lack of demand in the domestic market. During the first 7 months of calendar 1979, the U.S. import price (f.o.b. Texas) averaged \$234 per ton,

compared with \$342 during the same period a year earlier and \$309 during the first 7 months of 1977.

Mexico is a relatively small producer of grapefruit, accounting for less than 2 percent of world output. The industry, however, is fearful an oversupply will develop when all of the trees in Florida and Texas are full bearing. Adding to Mexico's concern is the huge expansion of grapefruit plantings in Cuba. It is estimated that Cuba's grapefruit area will approach Florida's by 1985. While the United States banned all imports from Cuba in 1962, Mexico is fearful that, it may lose a share of the U.S. market if this ban should be lifted.

Lime production has stabilized over the past few years. About 95 percent of all limes are the Key variety and are mainly consumed domestically or processed for lime oil. The remaining 5 percent are primarily Persian (Tahiti) limes, a large proportion of which are exported to the United States.

### **Fresh Export Market**

All fresh citrus fruit destined for the export market passes through packinghouses, most of which have fumigation facilities approved by the U.S. Department of Agriculture. There are 31 packinghouses in Mexico that handle fruit for the export market; 26 are located in the Montemorelos-Linares zone of Nuevo Leon. The latter 26 packinghouses are members of the Mexican Association of Citrus Packers, established in 1964 for the purpose of promoting citrus production and improving quality and marketing opportunities for its members. The Association is making progress in coordinating the marketing activities of each of the member packinghouses so as to control supply. Each packinghouse, however, sells its fruit under different trademarks.

The fresh export market takes 1-3 percent of orange production, 20-25 percent of the tangerine output, 10-15 percent of the grapefruit crop, and about 1 percent of total lime production.

About 60 percent of Mexico's orange exports go to the United States, and all of its tangerine shipments go to the United States and Canada. Tangerines are more or less limited to these countries because they are susceptible to decay and to peel injury brought on by excessive handling.

Despite the freeze in December 1978, which further set back production of oranges and tangerines, exports of these fruits to the United States are up substantially from the 1977/78 level. U.S. imports from Mexico during November 1978-August 1979 totaled 39,538 tons (52 percent tangerines and 48 percent oranges). This represents a 62 percent jump over imports in the same period in 1977/78. The short 1978/79 orange crop in California and Arizona is the major reason for the increase. Mexican shipments to

the United States, especially oranges, fluctuate considerably from one year to another. Such changes are mainly caused by sudden fluctuations in the level of U.S. demand and less frequently to changes in Mexican supply, when frosts or droughts hit the main growing areas.

Most of the remaining orange exports go to the German Democratic Republic (GDR). Official Mexican trade data (1977) show orange exports to the United States and the GDR evenly split at about 17,000 tons each. Small shipments also go to the Netherlands (about 383 tons in 1977). Trade sources believe that with the anticipated increase in production, orange and tangerine exports will increase about 25 percent above current levels by the mid 1980's. These same sources said that they will ship as much fruit as economically possible to the United States and Canada, and also that they are interested in increasing orange exports to Western Europe.

Exports of fresh grapefruit have doubled in the past few years, with the major markets being the United States, Western Europe (primarily the Netherlands and France) and most recently, Japan. Japanese imports from Mexico rose from 90 tons in 1971 to 3,188 tons in 1978, exceeding the calendar 1978 U.S. import level of 1,257 tons. Mexican grapefruit shippers compete directly with U.S. growers for the U.S. market, as well as other foreign markets. They have the advantage of being able to get their fruit to these markets 2 to 3 weeks before the U.S. shipping season gets underway because of the early harvest in Veracruz.

In light of anticipated larger supplies, Mexican exporters hope to maintain the U.S. and West European markets at least at present levels, and are confident they can get more fruit into Japan during the early part of the marketing year.

The Persian lime, being larger and sweeter than the Key lime, is popular for fresh consumption in the United States as well as other parts of the world. The United States takes most of Mexico's export sales. Small shipments also to Japan and Western Europe.

U.S. imports of Mexican limes have trended upward in recent years, going from 3,081 tons in 1974 to a record 12,334 tons in 1978. The increase is attributed to greater supplies of the Persian variety in Mexico, coupled with a decline in U.S. output, which has fallen from about 40,000 tons in 1974/75 (April-March) to 19,000 tons in 1978/79. The 1977 freeze in Florida is the main reason for the drop in production. U.S. imports from Mexico continued at a high level during the first 8 months of calendar 1979 (8,020 tons compared with 7,093 during the same period in 1978). However, they are not expected to reach the 1978 total because of an anticipated rebound in U.S. output during the 1979/80 season.

## Processing Industry

Mexico's citrus processing industry is comprised of three basic sectors: Orange juice, sectioning, and lime processing.

**The orange juice industry:** With anticipation of continued strong demand for orange juice and increased in orange production, the juice processing industry is expanding and modernizing its facilities. Of the nine plants that produce orange juice, six produce concentrates. Combined, they have the capacity to remove 131,000 pounds of water vapor per hour and have a total of 60 extractors (table 8). There are plans to build six more plants by 1981/82, which if realized—would double Mexico's overall processing capacity. Three of the plants will be located in Veracruz, and one each in Nuevo Leon, Tamaulipas, and Yucatan.

One of the largest plants, located in Montemorelos, has recently installed eight 100,000-gallon cold storage tanks to reduce handling costs, obtain consistent blends, and facilitate the transfer of juice in bulk. Similar tanks have been in existence in Florida for 5 years, but never before in Mexico. Mexican processors realize that in order to compete with the United States and Brazil (the world's leading exporter of orange juice) they must produce a good-quality product and be cost efficient.

By the middle of the 1979/80 season, this plant will begin to ship a portion of its output to the United States in bulk rather than in the conventional 55-gallon drums. The frozen slush juice will be transported from the plant by truck in stainless steel containers holding 20-25 tons at temperatures well below freezing. Officials indicate that most of the savings in this transportation system will be from lower fuel costs and eliminating the cost of purchasing and handling drums. Each drum costs about \$20-\$25. This bulk system of transporting juice is commonly practiced by processors in Florida, who ship their juice to northern dairies for packaging.

About 70 percent of Mexico's orange juice production is exported. The United States is the leading market, taking about one-half of Mexico's exports. Canada, Sweden, the Bahamas, and West Germany are other important buyers.

U.S. demand for imported orange juice has been particularly high in the past several years because of high prices for domestic juice generated by the Florida freeze of January 1977. This demand prompted Mexico to step up shipments of juice to the United States in 1977 and 1978. However, because of limited processing capacity, the industry was not able to take full advantage of the high demand. While U.S. imports of orange juice soared from 31.4 million gallons (single-strength equivalent) in calendar 1976 to 150.7 million gallons in 1978, almost all of the increase came from

Brazil, which has the capacity to produce 10-12 times more juice than Mexico. In 1978, U.S. imports from Mexico and Brazil totaled 9.9 million and 139.5 million gallons, respectively, and during the first 8 months of 1979, U.S. imports from these countries amounted to 5 million and 101 million gallons, respectively.

The Mexican processors are, however, optimistic that U.S. demand for concentrate will continue to be strong during the next several years. Despite occasional fluctuations, they foresee no problem in selling their future output to the United States. They believe the trend toward increased U.S. consumption of orange juice, coupled with population growth, will help maintain sales even when U.S. production is at normal levels.

The Mexican industry is also attempting to expand the domestic market. Most orange juices on the local market are classified as orange drinks and are not 100 percent natural juices. The drinks are less expensive and more affordable to the populace than natural juice. However, the share of natural juices has been on the increase in the past several years. One-liter and half-liter packages of reconstituted, single-strength juice are fairly common throughout Mexico. Moreover, a 1-liter plastic container of frozen concentrate was recently introduced on the retail market. Trade sources indicate that the industry may soon start marketing half- and quarter-liter tetrapacks of concentrates in Mexico City.

**The sectioning industry:** There are four plants in Mexico that section citrus (oranges, tangerines, and grapefruit) and other fruits; two of the plants are located in Linares and one each is situated in Nuevo Laredo (near the Texas border) and in Montemorelos. Virtually all of the output is exported—about 90 percent to the United States and most of the remainder to Canada. The fruit is all sectioned by hand and packaged in 1-gallon jars and 30- and 45-pound plastic pails. After being packaged, the containers are put into a freezing tunnel for approximately 2 hours at temperatures of 26°-28°F to insure against fermentation. The product is then kept in cold storage until ready to be transported under refrigeration to market.

In calendar 1978, the United States bought 4,531 tons of prepared and/or preserved oranges and grapefruit from Mexico, valued at \$2.2 million, and 4,036 tons of prepared fruit mixtures, worth \$2.3 million. Fruit mixtures include several fruits such as apples, bananas, melons, and pineapples in addition to citrus.

Reportedly, the industry operated at close to capacity in the 1978/79 season because of strong U.S. demand for sectioned fruit. Industry sources are optimistic about the future, and a new plant is expected to be built in General Tehran in Nuevo

Leon by the 1980/81 season.

The industry's optimism stems from the fact that Florida's output of sectioned fruit (both canned and chilled) has been declining in recent years. Florida accounts for about 90 percent of total U.S. production. Output of sectioned grapefruit, oranges, and fruit salad in Florida has dropped slightly over 50 percent since the mid 1960's and totaled about 17,050 tons in 1978/79 (5,950 tons grapefruit; 2,400 tons oranges; and 8,700 tons fruit salad).

The U.S. industry is handicapped in competing with the Mexican imports in terms of both quality and costs of production. High labor costs in the United States forced most of the processors to replace much of their labor force with machinery, and consequently only 15 percent of Florida's output is currently sectioned by hand. The quality of machine-cut sections is said to be inferior to those cut by hand. The Mexican industry is labor-intensive, but the abundance of inexpensive labor should enable it to continue hand sectioning for some time and effectively compete with U.S. process.

**Lime processing industry:** The lime processing industry is based primarily on the production of essential oils, and to a lesser extent on natural and concentrated juices. About one-fourth of Mexico's total lime output is processed. The processing season coincides with the harvesting of limes and is heaviest during April-October.

Essential oils are extracted from the rind of the lime and are used extensively as a flavoring in food products, confectionery items, and beverages. The oils are also used in perfumes, cosmetics, and soaps. Lime oil is costly to manufacture, as only about 4

kilograms of oil can be extracted from 1 ton of fresh limes.

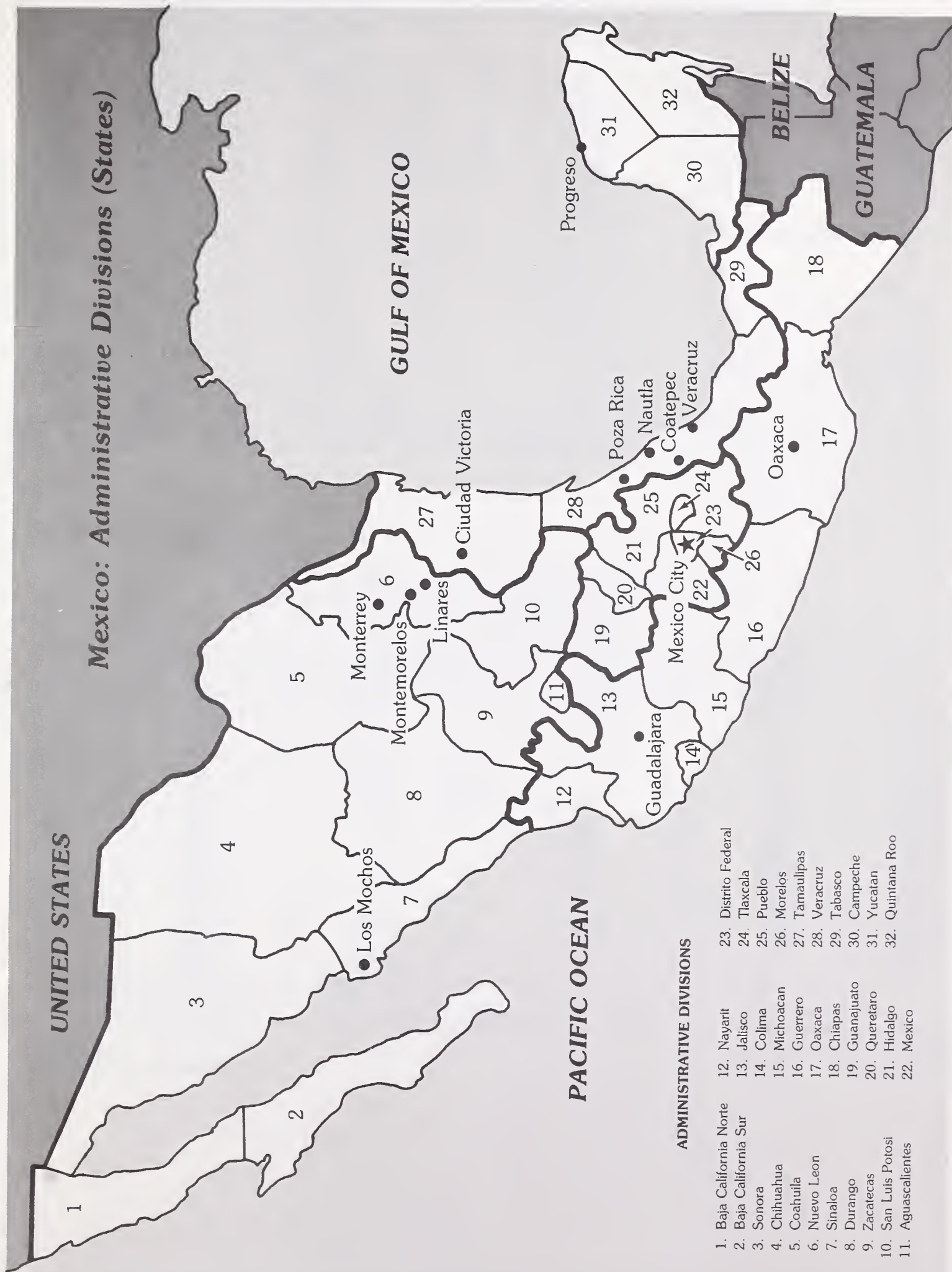
Mexico leads the world in the production of lime oil and commands nearly 60 percent of the world export market. Roughly three-fourths of Mexico's output is exported, primarily to the United States and the United Kingdom. The United States is the world's leading consumer of lime oil and is dependent on Mexico to supply most of its needs. Mexico accounts for about two-thirds of U.S. imports of lime oil, with Haiti, Jamaica, Brazil, and Spain supplying most of the remainder.

Most of Mexico's lime juice exports are in concentrated form. Two-thirds go to the United Kingdom and about one-third to the United States. The United States imported 390,000 gallons (single-strength equivalent) of Mexican concentrated lime juice in calendar 1978.

Because production of limes has stabilized in Mexico, no significant expansion in exports of lime products is anticipated in the near future. All indications are that the United States and the United Kingdom will continue to be the leading markets for lime oil and juices.

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This circular, based on original research and information gathered in the field, was prepared by John H. Wilson, formerly with the Horticultural and Tropical Products Division, Commodity Programs, FAS/USDA, Washington, D.C. 20250, and now assigned to the International Trade Policy Division, FAS. Further information relating to the circular may be obtained by writing the Division or telephoning (202)447-3470.



**Table 1—U.S. Imports of Fresh Citrus and Citrus Products from Mexico, 1974-79**

Item	Unit	Calendar year					Jan-Aug. 1979
		1974	1975	1976	1977	1978 <sup>1</sup>	
Oranges.....	metric tons	--	--	--	--	11,435	1,883
Tangerines.....	metric tons	--	--	--	--	25,305	15,040
Oranges and Tangerines.....	metric tons	36,897	22,243	23,172	35,709	36,741	16,923
Grapefruit.....	metric tons	2,804	2,204	4,133	4,307	1,257	209
Limes.....	metric tons	3,081	3,843	4,514	7,873	12,334	8,029
Concentrated orange juice.....	1,000 gallons	5,160	3,315	1,473	13,790	9,860	5,377
	(single-strength equivalent)						
Lime juice, not concentrated .....	1,000 gallons	83	34	24	99	42	9
	(single-strength equivalent)						
Lime juice, concentrated.....	1,000 gallons	63	761	188	481	390	81
	(single-strength equivalent)						
Prepared or preserved oranges ....	metric tons	--	--	--	--	2,193	1,337
Prepared or preserved grapefruit.	metric tons	--	--	--	--	2,338	1,861
Prepared fruit mixtures.....	metric tons	150	114	148	1,617	4,036	2,598
Lime oil.....	metric tons	342	282	235	429	473	295

<sup>1</sup>U.S. imports of total citrus and citrus products from Mexico were valued at \$35 million in CY 1978 of which \$11.4 million was for fresh citrus, \$9.7 million for citrus juice, \$4.5 million for canned and preserved products and the remainder for lime oil.

--- Denotes not available, unknown, or not applicable.

Source: U.S. Bureau of Census.

November 1979

Commodity Programs, FAS, USDA

**Table 2—Fresh Oranges: Exports from Mexico, 1963-77  
(Metric tons)**

Year	Country of destination								Total
	Argentina	Canada	German Dem. Rep.	Fed. Rep. of Germany	Netherlands	Poland	United States	Other	
1963.....	---	---	---	---	149	---	42,118	---	42,267
1964.....	---	---	---	461	---	---	58,959	---	59,420
1965.....	---	147	---	1,932	243	46,100	30,671	---	79,093
1966.....	---	65	---	6,930	967	---	17,671	---	25,633
1967.....	---	104	---	4,402	935	---	24,340	---	29,781
1968.....	486	365	---	4,250	---	---	56,959	---	62,060
1969.....	---	1,142	9,868	---	---	---	21,588	---	32,598
1970.....	475	143	4,457	---	16	---	21,636	---	26,727
1971.....	285	600	14,992	---	---	---	27,055	1	42,933
1972.....	704	1,212	15,980	---	---	---	30,134	45	48,075
1973.....	5,785	1,514	16,743	---	---	---	24,148	248	48,438
1974.....	2,780	510	18,464	---	180	---	16,828	4	38,766
1975.....	1,569	---	4,002	---	53	---	5,203	1	10,828
1976.....	---	107	7,393	---	301	---	4,866	---	12,667
1977.....	---	52	17,220	---	376	---	17,407	2	35,057

--- Denotes not available, unknown, or not applicable.

Source: Anuario Estadístico del Comercio Exterior de los Estados Unidos Mexicanos.

November 1979

Commodity Programs, FAS, USDA

**Table 3—Tangerines, Fresh: Exports from Mexico, 1963-77 (Metric tons)**

Year	Country of destination			Total
	Canada	Other	United States	
1963.....	0	0	4,498	4,498
1964.....	20	0	11,805	11,825
1965.....	345	0	7,756	8,101
1966.....	392	0	5,597	5,989
1967.....	488	0	15,163	15,651
1968.....	---	---	---	---
1969.....	1,66	0	18,091	19,759
1970.....	2,141	31	21,313	23,485
1971.....	440	0	11,057	11,497
1972.....	635	0	27,358	27,993
1973.....	20	2	27,476	27,498
1974.....	88	0	25,258	25,346
1975.....	0	25	19,238	19,263
1976.....	124	19	25,989	26,132
1977.....	---	---	20,327	28,405

--- Denotes not available, unknown, or not applicable.

Source: Anuario Estadístico del Comercio Exterior de los Estados Unidos Mexicanos.

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**Table 4—Lime, Fresh: Exports from Mexico, 1963-77 (Metric tons)**

Year	Country of destination		
	United States	Other	Total
1963.....	2,214	0	2,214
1964.....	1,819	0	1,819
1965.....	1,024	41	1,065
1966.....	674	0	674
1967.....	368	0	368
1968.....	370	0	370
1969.....	227	28	255
1970.....	848	0	848
1971.....	878	4	882
1972.....	1,215	59	1,274
1973.....	1,752	140 <sup>1</sup>	1,892
1974.....	3,036	15	3,051
1975.....	3,498	38	3,536
1976.....	4,196	13	4,209
1977.....	5,530	11	5,541

<sup>1</sup>Includes 33 tons to Belgium-Luxembourg and 87 tons to Japan.

--- Denotes not available, unknown, or not applicable.

Source: Anuario Estadístico Comercio Exterior de los Estados Unidos Mexicanos.

Commodity Programs, FAS, USDA

**Table 5—Grapefruit, Fresh: Exports From Mexico, 1963-77 (Metric tons)**

Year	Country of destination									Total
	Argentina	Belgium-Luxembourg	Canada	France	Fed. Rep. of Germany	Japan	Netherlands	United States	Other	
1963.....	---	---	---	---	---	---	---	677	---	677
1964.....	---	---	---	---	---	---	---	1,546	---	1,546
1965.....	---	---	24	---	---	---	---	89	---	113
1966.....	---	---	21	---	---	---	---	72	---	93
1967.....	---	---	5	---	---	---	---	47	---	52
1968.....	117	---	78	---	---	---	---	789	---	984
1969.....	---	---	57	---	---	---	---	1,234	---	1,291
1970.....	414	---	145	---	---	---	---	1,712	---	2,271
1971.....	---	---	---	---	---	87	---	2,692	---	2,779
1972.....	306	---	22	---	---	---	---	5,197	---	5,525
1973.....	946	---	43	---	95	---	---	4,617	---	5,701
1974.....	3,519	---	---	367	197	---	257	3,807	146 <sup>1</sup>	8,293
1975.....	775	96	---	154	---	121	545	3,301	38 <sup>2</sup>	5,030
1976.....	---	153	386	513	76	373	2,056	7,144	82 <sup>3</sup>	10,783
1977.....	300	---	---	1,090	---	90	4,126	6,003	25 <sup>4</sup>	11,634

<sup>1</sup>Includes 122 tons to German Democratic Republic. <sup>2</sup>All to the United Kingdom. <sup>3</sup>All to Bermuda. <sup>4</sup>All to Sweden.

--- Denotes not available, unknown, or not applicable.

Source: Anuario Estadístico del Comercio Exterior de los Estados Unidos Mexicanos.

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Table 6—Orange Juice: Exports From Mexico, 1963-77  
(Metric tons)

Year	Country of destination									Total
	Australia	Bahamas	Canada	Fed. Rep. of Germany	Nether-lands	Sweden	Switzer-land	United States	Other	
1963.....	---	---	598	---	---	---	---	2,021	---	2,619
1964.....	---	---	58	---	---	---	15	4,232	---	4,305
1965.....	---	---	76	---	---	---	18	680	1	775
1966.....	---	---	281	---	22	5	75	82	---	465
1967.....	---	---	---	6	---	11	125	35	---	177
1968.....	---	---	---	---	---	6	41	750	---	797
1969.....	---	---	---	2	---	31	13	236	---	282
1970.....	---	---	---	688	---	3	115	---	2	808
1971.....	---	172	566	18	34	27	---	967	23	1,807
1972.....	---	57	1,499	217	---	320	---	4,548	1	6,642
1973.....	---	3,021	1,403	11	---	514	---	5,390	38	10,377
1974.....	938	904	1,226	---	322	873	---	6,779	---	11,042
1975.....	1,392	---	1,020	---	---	383	---	507	239 <sup>1</sup>	3,541
1976.....	2,621	501	1,489	116	---	1,500	---	1,721	513 <sup>2</sup>	8,461
1977.....	761	2,058	5,797	635	---	4,432	---	7,450	2,811 <sup>3</sup>	23,944

<sup>1</sup>Includes 142 tons to Austria. <sup>2</sup>Includes 513 tons to United Kingdom. <sup>3</sup>Includes 2,415 tons to the United Kingdom and 270 tons to Finland.  
--- Denotes not available, unknown, or not applicable.

Source: Anuario Estadístico del Comercio Exterior de los Estados Unidos Mexicanos.

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Table 7—Citrus, Fresh: Exports from the United States to Mexico (Metric tons)

Season <sup>1</sup>	Oranges	Tangerines	Grapefruit	Lemon
1970/71.....	172	---	54	1,951
1971/72.....	66	58	303	814
1972/73.....	71	28	95	160
1973/74.....	46	23	41	615
1974/75.....	287	23	105	658
1975/76.....	831	8	174	1,061
1976/77.....	579	10	220	638
1977/78.....	275	1	148	668
1978/79 <sup>2</sup> ...	114	18	45	530

<sup>1</sup>Season for oranges and tangerines is November-October, grapefruit September-August, lemons August-July.

<sup>2</sup>Through August.

--- Denotes not available, unknown, or not applicable.

Source: U.S. Bureau of Census.

November 1979

Table 8—Number of Extractors and Evaporation Capacity Per Orange Juice Processing Plant in Mexico, 1978/79

Location of plant	Extractors	Evaporation capacity <sup>1</sup>
Montemorelos, Nuevo Leon.....	15	40,000
Montemorelos, Nuevo Leon.....	7	15,000
Monterrey, Nuevo Leon.....	6	12,500
Coatepec, Veracruz.....	8	10,000
Nautla, Veracruz.....	14	31,000
Poza Rica, Veracruz.....	6	22,500
Los Robles, Veracruz.....	2	0
Los Mochis, Sinaloa.....	1	0
Oaxaca, Oaxaca.....	1	0
Total.....	60	131,000

<sup>1</sup>Pounds of water removed per hour.  
Source: Trade and industry contacts.

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## fresh and processed citrus fruits

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### SOUTHERN HEMISPHERE CITRUS PRODUCTION DOWN IN 1979/80

Citrus production in leading Southern Hemisphere producing countries for the 1979/80 season is forecast at 10.3 million tons, down 9 percent from last year's record crop. The decrease is attributed to a smaller orange crop in Brazil caused by dry weather during the principal blossoming period in August and September and lower tree vigor following last season's bumper crop.

South Africa and Brazil continue to be important Southern Hemisphere citrus exporters. South Africa, the world's leading exporter of fresh oranges during the Northern Hemisphere summer period, shipped a record 371,526 tons in 1978 and is expected to export only slightly less this season. Brazil, a small exporter of fresh citrus, but the world's largest exporter of frozen concentrated orange juice (FCOJ), shipped a record 355,629 tons (65° Brix) in 1978, up 57 percent from the previous year's. The United States emerged as Brazil's leading market in 1978, taking 44 percent of the shipments. Brazilian exports of FCOJ should be down about 20 percent in 1979 because this year's smaller crop is expected to reduce the quantity of oranges available for processing.

The Southern Hemisphere accounts for approximately one-fourth of total annual world citrus production. Nearly all Southern Hemisphere production is between April and January. This circular summarizes the citrus situations in Argentina, Australia, Brazil, Chile, and South Africa. All tons are metric, and equivalent to approximately 2,204.6 pounds.

#### Argentina

##### Production

Citrus production for the 1979/80 season is pegged at 1.33 million tons, down slightly from last year's crop because of frost damage in late August 1978 in the Provinces of Jujuy and Salta. The orange crop is 4 percent ahead of last year's outturn of 670,000 tons; however, this increase is not large enough to offset declines in tangerine, lemon, and grapefruit production.

##### Marketing

Most of Argentina's citrus is consumed domestically, yet exports of fresh citrus rose slightly in calendar 1978 to 71,156 tons. Lemon shipments reached a record 24,535 tons, because of strong demand from Hungary and the German Democratic Republic.

Grapefruit exports continued to trend upward, reaching 19,000 tons in 1978; however, orange shipments fell 12 percent to 26,928 tons, reflecting a reduction in shipments to West Germany.

Processor use of citrus remains static. About 20 percent of total fresh citrus production is processed into juice concentrates. Processing capacity is estimated at 600,000 tons; however, the industry is currently operating at only 40 percent of capacity, reportedly because of high processing costs. No official export data is available for citrus products, yet it is estimated that about half of the total citrus juice production is exported (mainly as frozen concentrates).

## Australia

### Production

A record citrus crop of 465,000 tons in forecast for the 1979/80 season. Production of navel oranges is expected to fall slightly from last year's level to 128,000 tons, yet valencia output is projected at a record high of 235,000 tons. The larger valencia crop is due to new orange trees coming into bearing in the States of South Australia and Victoria. Production of tangerines is placed at 27,000 tons, slightly lower than the 1978/79 crop because of smaller yields in the southern states. Production of lemons is expected to rise above last season's record of 42,000 tons, with most of the gains occurring in the south Australian districts. The grapefruit crop will also be larger as new plantings in the Riverland and Sunraysia districts come into bearing.

Production is expected to trend upward over the next few years especially of valencia oranges. A census taken during the 1977/78 season revealed that 20 percent of the valencia plantings are expected to continue to trend upward; however, the rate of increase is highly contingent on the profitability of the orange juice industry (about two-thirds of the valencia outturn is processed) and the effectiveness of the high protection recently obtained against orange juice imports.

Bearing lemon and grapefruit tree numbers are expected to reach plateaus over the next couple of years at levels slightly to moderately above present levels. The number of navel and tangerine trees on the other hand have already peaked because domestic and foreign demand for these fruits has stabilized and demand from the processing sector is limited.

### Marketing

The domestic market now absorbs about 95 percent of Australian citrus production. The recent growth in citrus consumption is largely confined to increases in the consumption of citrus juices. The swing to juice is attributed to higher consumer incomes and a switch in consumer preference from fresh to processed products. Processor intake during the 1978/79 season is pegged at 239,000 tons (146,000 tons of valencias, 51,000 tons of navels, 28,000 tons of lemons, 13,000 tons of grapefruit, and 1,000 tons of tangerines).

The outlook for the 1979/80 season is for a further increase in processor utilization, partly because of the larger crops in prospect but mainly because of higher protection against imported juices. A temporary ad valorem duty of 65 percent, applied to imported orange concentrate since 1977, was replaced by a new tariff structure in April 1979. This provides for a variable duty representing the difference between the value of the duty of the total soluble solids content contained in the juice per kilogram, and \$A2.40 (\$A1 equals US\$1.05). At present prices this represents an ad valorem duty of about 63 percent. The duty has been effective in curbing imports, but has resulted in higher prices of domestic juices and a switch in consumer preference to lower priced juices at the expense of pure natural juice.

Fresh exports of citrus account for only 6 percent of production. New Zealand and Singapore are the chief markets for oranges, taking 9,600 and 4,000 tons, respectively, last season. Tangerine shipments, totaling 5,300 tons in 1978/79, go mainly to Canada, West Germany, and Sweden. Lemon and grapefruit exports are relatively insignificant, 600 and 60 tons, respectively last season. Major markets for lemons are Canada and Singapore and Western Europe for grapefruit. Fresh citrus exports this season are expected to remain near the level of the 1978/79 season.

## Brazil

### Production

Brazil is the No. 1 producer of oranges in the Southern Hemisphere and the second largest producer in the world, next to the United States. The country's orange crop is forecast at 6.9 million tons, down 12 percent from last year's record crop of 7.9 million tons. Last season's output was much larger than anticipated and would have been even larger if field losses had not been so high. The losses were due to lack of processor interest in early Hamlin oranges and to the overwhelming size of the crop, which exceeded processing capacity during the peak harvest period. This season's orange crop is down because of very dry weather during the principal blossoming period in August and September, coupled with lower productive capacity of the trees following last year's very large crop. Production of lemons, limes, and tangerines is expected to equal about 10 percent of total citrus production.

The State of Sao Paulo, the principal citrus producing State and center of the processing industry, accounts for about three-fourths of Brazil's orange crop and encompasses approximately 338,000 hectares of oranges. During the 1979/80 season, Sao Paulo groves are expected to yield 1.73 boxes (90 pounds each) of oranges per tree, with an estimated 68.8 million trees in bearing (22.8 million trees are not yet bearing).

Sao Paulo's orange production outlook is for continued gains over the next few years. In view of the investments being made in the expansion and establishment of new processing plants for frozen concentrated orange juice, most observers expect output in the State to reach 8.2 million tons by the late 1980's.

The Sao Paulo commercial citrus zone is free of citrus canker, but the disease exists in some areas of the State, as well as in the neighboring States of Parana and Mato Grosso. The Federal Government's campaign to eradicate citrus canker is funded in part by a 1.4 cent surcharge on every box of oranges sold for processing, with processors and growers bearing 71 and 29 percent, respectively, of the cost.

### Marketing

Almost all of the orange production outside of Sao Paulo State is consumed in the fresh form. Processors are expected to utilize 3.88 million tons of Sao Paulo's orange production in 1979/80, a decrease of 19 percent from last

season's because of the poorer crop. An estimated 61,000 tons of the State's fresh orange production is expected to be exported and the remaining 1.16 million tons will be consumed fresh in local markets.

The Sao Paulo citrus processing industry is almost entirely devoted to the manufacture of frozen concentrated orange juice and is currently going through a period of rapid expansion. There are 11 factories operating in the State and another factory, to contain 96 extractors, is currently under construction in Colina, and will begin operation with 48 extractors this September. Other Brazilian companies plan to build new plants in the near future. By December 1979, processing facilities in the State of Sao Paulo will have a total of 469 extractors and by May 1980, a total of 517 is expected.

Production of FCOJ in Sao Paulo State is forecast at 323,000 tons (65° Brix), down 19 percent from last year's. Likewise, production of dried citrus pulp is expected to drop slightly to 399,000 tons. About 95 percent of FCOJ production and all but a few thousand tons of the pulp are exported. The industrial yield of FCOJ is expected to remain at last season's level of 3.4 kilograms per box (90 pounds each).

Export prices of FCOJ during calendar year 1978 averaged US\$991 per ton, f.o.b. Santos, and averaged about \$972 during January and February of 1979. In comparison, the average export price was \$829 per ton in calendar 1977, \$481 in 1976, and \$454 in 1975. In calendar 1978, the United States became the largest market for Brazilian FCOJ, accounting for 44 percent of Brazil's exports, compared with 22 percent in 1977 and 8 percent in 1976. The increase in shipments to the United States was due to the short U.S. orange crop and high prices for domestic FCOJ. Exports to Canada increased, while shipments to Western Europe fell for the third consecutive year as a result of larger shipments to the United States and Canada.

The Government of Brazil offers a series of incentives to exporters of FCOJ but the most important of these is gradually being phased out. Until January 1979 exporters received a tax credit equal to 20 percent of the f.o.b. value of export sales, which was then reduced to 18 percent and in April 1979 to 17 percent. The tax credit will drop 1 percent per calendar quarter until completely eliminated in 1983.

Another export incentive for FCOJ is the subsidized financing of production for export (Central Bank Resolution 515 of February 2, 1979), which permits processors to borrow an amount equal to 30 percent of the value of their exports in the previous year. The average repayment period is 276 days. After 6 months, processors can obtain an additional loan equal to 20 percent of any increase in the export value during the past 6 months compared with the corresponding period of the previous year. The interest rate of Resolution 515 financing is 8 percent per annum, discounted at the time of the loan. Under the terms of the Ministry of Finance's Directive No. GB-203 of June 2, 1971, firms are not subject to income tax on earnings from export sales of FCOJ. Presently corporate

income is taxed at 30 percent. In addition, oranges for processing are not subject to the States' value-added tax (ICM), which varies from 11 to 14 percent.

## **Chile**

### **Production**

Orange and lemon production in Chile is continuing an upward trend and is expected to reach 47,500 and 71,000 tons, respectively, this season. Lemon output has risen 56 percent since the 1976/77 season because of additional bearing area and excellent weather conditions. However, no new plantings of lemons are anticipated in the new future because of a sharp drop in domestic lemon prices in 1978 following last year's bumper crop. Orange plantings have remained fairly static in recent years, and no significant increase is anticipated.

### **Marketing**

Domestic consumption of citrus fruit in 1978 rose 5 percent from the previous year's level to 113,700 tons. The moderate gain was largely in lemons because of larger supplies coupled with lower prices.

Exports of fresh lemons in 1978, mainly to West Germany, increased 9 percent from the previous year's level to 3,800 tons. The large 1977/78 lemon crop depressed domestic prices and encouraged growers to seek foreign markets. No orange exports were reported.

The latest customs information shows 1978 imports of citrus fruit at 2,500 tons, mainly from neighboring Argentina, Peru, and Bolivia. Processing continues to account for a small percentage of production, approximately 4,000 tons annually.

## **South Africa**

### **Production**

South Africa's 1979/80 citrus crop, consisting mainly of oranges, is forecast at 710,370 tons, slightly less than the previous years'. Reportedly, overall quality is good, although fruit size is expected to be slightly smaller than normal because of dry hot weather early in the season.

### **Marketing**

Despite the slight decrease in citrus output, preliminary estimates indicate that exports of fresh citrus in 1979 will rise 4 percent over the record 1978 level to 441,699. Exports take 60 percent of South Africa's citrus crop and provide 90 percent of the industry's gross revenue. Last year's export volume produced a record high gross income of \$202.2 million and a net return to the farmers of \$142.7 million, 22 and 64 percent above the 1977 and 1976 levels, respectively.

Because of the importance of citrus as an earner of foreign exchange, the South African Citrus Exchange carries on a rigorous promotional program for its Outspan and other brands. Expenditures for this purpose, financed by levies on gross citrus proceeds, reached, \$2.74 million in 1977 compared with \$2.61 million in 1976. The bulk of South

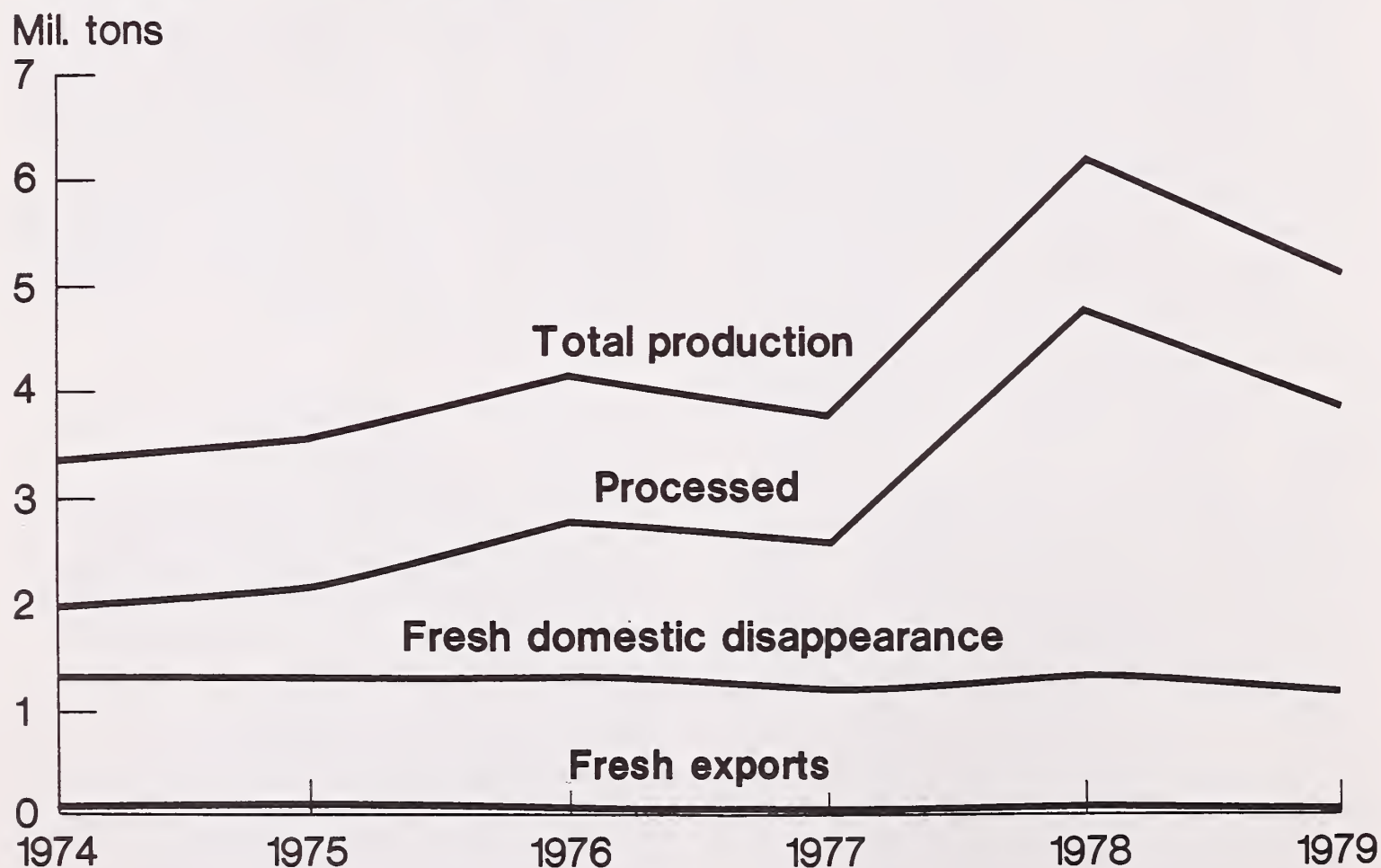
Africa's citrus exports go to the United Kingdom and Europe. With the market in Iran apparently lost, these outlets will become increasingly important.

Supplies to the processing industry, consisting mainly of oranges, jumped 64 percent in 1978/79 from the previous year's level to 196,423 tons. The average per-ton-prices that processors paid for oranges, grapefruit, and lemons in 1978

were \$34, \$15, and \$44 respectively. Intake of citrus for processing is expected to decline moderately in 1979/80 to 181,837 tons because of the decline in citrus production.

This circular was prepared by John H. Wilson of the Horticultural and Tropical Products Division, CP, (202) 447-2974.

## Production, Utilization, and Disposition of Brazilian Oranges (Sao Paulo Only), 1974 to 1979



SWEET ORANGES, FRESH: PRODUCED, PROCESSED, EXPORTED BY  
SELECTED SOUTHERN HEMISPHERE COUNTRIES, SEASONS 1/ 1974-79  
(In Thousand Metric Tons)

Country	1974	1975	1976	1977	1978	1979 2/
<u>Produced</u>						
Argentina.....	833	729	743	740	670	700
Australia.....	341	362	322	356	364	368
Brazil 3/.....	5,500	5,200	5,960	5,520	7,854	6,930
Chile.....	43	44	45	45	47	48
South Africa 4/.....	545	499	564	463	591	583
<u>Processed</u>						
Argentina.....	76	55	86	100	90	95
Australia.....	167	172	156	194	197	200
Brazil 5/.....	1,999	2,162	2,734	2,530	4,774	3,876
Chile.....	2	2	2	2	2	2
South Africa 4/.....	183	74	148	91	158	144
<u>Exported</u>						
Argentina.....	28	5	18	30	27	25
Australia.....	10	15	6	16	20	21
Brazil 5/.....	40	73	36	36	45	61
South Africa 4/.....	273	304	316	301	372	361

1/ Data are for seasons beginning with year shown. Export data are for calendar year shown. 2/ Estimate.  
3/ Total Brazilian production. 4/ Production may include a small quantity of tangerines. 5/ Sao Paulo state only.

SOURCE: Produced and Processed, FAS Attache Reports, Exported, See Individual Export Tables for Source.

July 1979

Commodity Programs, FAS, USDA

TANGERINES, FRESH: PRODUCED, PROCESSED, EXPORTED BY  
SELECTED SOUTHERN HEMISPHERE PRODUCING COUNTRIES, SEASONS 1/ 1974-79  
(In Thousand Metric Tons)

Country	1974	1975	1976	1977	1978	1979 2/
<u>Produced</u>						
Argentina.....	230	230	229	250	255	226
Australia.....	26	27	31	28	29	27
Brazil 3/.....	437	516	636	567	351	326
<u>Processed</u>						
Argentina.....	5	3	4	10	10	8
Australia.....	4/	1	1	1	1	1
<u>Exported</u>						
Australia.....	3	4	5	5	5	5
Brazil 3/ .....	1	1	2	4/	3	---

---Denotes not available, unknown, or not applicable.

1/ Data are for seasons beginning with year shown. Export data are for calendar year shown. 2/ Estimate.

3/ Sao Paulo state only. 4/ Less than 500 tons.

SOURCE: Produced and Processed, FAS Attache Reports, Exported, See Individual Export Tables for Source.

Commodity Programs, FAS, USDA

July 1979

LEMONS, FRESH: PRODUCED, PROCESSED, EXPORTED BY  
SELECTED SOUTHERN HEMISPHERE COUNTRIES, SEASONS 1/ 1974-79  
(In Thousand Metric Tons)

Country	1974	1975	1976	1977	1978	1979 2/
<u>Produced</u>						
Argentina.....	306	339	247	320	280	267
Australia.....	35	35	36	37	42	43
Brazil 3/.....	294	375	384	371	363	367
Chile.....	42	44	46	65	69	71
South Africa.....	24	24	22	25	35	32
<u>Processed</u>						
Argentina.....	95	50	65	95	85	80
Australia.....	28	20	21	21	28	28
Chile.....	1	1	1	1	1	2
South Africa.....	8	6	7	7	10	8
<u>Exported</u>						
Argentina.....	8	10	11	17	25	27
Australia.....	1	1	1	4/	1	16
Chile.....	4/	3	4	4	4	4
South Africa.....	12	14	14	15	22	21

1/ Data are for seasons beginning with year shown. Export data are for calendar year shown. 2/ Estimate.  
3/ Sao Paulo state only; includes both lemons and limes. 4/ Less than 500 tons.

SOURCE: Produced and Processed, FAS Attache Reports, Exported, See Individual Tables for Source.

July 1979

Commodity Programs, FAS, USDA

GRAPEFRUIT, FRESH: PRODUCED, PROCESSED, EXPORTED BY  
SELECTED SOUTHERN HEMISPHERE COUNTRIES, SEASONS 1/ 1974-79  
(In Thousand Metric Tons)

Country	1974	1975	1976	1977	1978	1979 2/
<u>Produced</u>						
Argentina.....	177	185	180	170	145	140
Australia.....	18	20	22	23	25	27
Brazil 3/.....	6	3	2	2	8	8
South Africa.....	112	83	77	81	90	96
<u>Processed</u>						
Argentina.....	72	60	80	85	70	70
Australia.....	10	11	12	12	13	15
South Africa.....	47	13	20	22	29	30
<u>Exported</u>						
Argentina.....	18	10	12	17	19	20
Brazil 3/.....	1	4/	1	4/	---	---
South Africa.....	61	62	59	55	65	59

---Denotes not available, unknown, or not applicable.

1/ Data are for seasons beginning with year shown. Export data are for calendar year shown. 2/ Estimate.  
3/ Sao Paulo state only. 4/ Less than 500 tons.

SOURCE: Produced and Processed, FAS Attache Reports, Exported, See Individual Export Tables for Source.

July 1979

Commodity Programs, FAS, USDA

ORANGES, FRESH: EXPORTS FROM ARGENTINA, 1973-78

(Metric Tons)

Country of Destination	Calendar Year					
	1973	1974	1975	1976	1977	1978
<u>EUROPE</u>						
Belgium-Luxembourg.....	---	171	---	---	---	---
Czechoslovakia.....	---	---	---	---	1,980	3,384
Finland.....	---	---	---	---	182	---
France.....	8,400	9,117	364	1,284	2,729	5,176
German Dem. Rep.....	---	---	---	1,800	2,340	570
Germany, Fed. Rep.....	2,680	1,692	243	85	3,751	900
Netherlands.....	11,778	9,085	3,040	11,242	15,940	15,467
Norway.....	---	148	---	---	---	---
Poland.....	---	---	---	424	---	---
Sweden.....	9	817	---	---	72	---
United Kingdom.....	1,787	4,179	---	---	360	1,431
Total.....	24,654	25,209	3,647	14,835	27,354	26,928
<u>OTHER COUNTRIES</u>						
Chile.....	2,881	2,409	1,635	2,750	61	---
New Zealand.....	759	---	---	---	---	---
Saudi Arabia.....	---	---	2	---	2,880	---
Total.....	3,640	2,409	1,637	2,750	2,941	---
Grand Total.....	28,294	27,618	5,284	17,585	30,295	26,928

---Denotes not available, unknown, or not available.

SOURCE: 1973-76 Official Trade of Argentina, 1977 and 1978 FAS Attache Reports.

July 1979

Commodity Programs, FAS, USDA

ORANGES, FRESH: EXPORTS FROM BRAZIL, 1973-78  
(Metric Tons)

Country of Destination	Calendar Year					
	1973	1974	1975	1976	1977	1978
<b>EUROPE</b>						
Czechoslovakia.....	1,804	---	3,996	8,531	---	---
Finland.....	1,470	1,794	2,639	1,659	1,806	976
France.....	1,034	579	3	182	290	---
German Dem. Rep.....	4,230	10,080	8,280	5,400	5,913	10,458
Germany, Fed. Rep.....	5,751	1	1,324	1	4	---
Malta.....	---	---	779	---	---	525
Netherlands.....	16,809	19,396	33,910	19,949	26,103	28,594
Norway.....	116	252	228	---	123	---
Poland.....	425	540	---	---	---	---
Sweden.....	40	52	450	69	44	---
United Kingdom.....	8,244	3,583	5,662	438	1,255	2,622
Other.....	10	184	145	---	53	---
Total.....	39,933	36,461	57,416	36,229	35,591	43,175
<b>OTHER COUNTRIES</b>						
Argentina.....	---	---	---	---	---	1,245
Canada.....	630	---	---	---	---	---
Hong Kong.....	175	145	---	---	---	---
Iran.....	---	2,625	9,465	---	---	---
Senegal.....	---	263	890	175	---	687
United Arab Emirates.....	---	---	5,300	---	---	---
Other.....	96	25	---	---	---	300
Total.....	901	3,058	15,655	175	---	2,232
Grand Total.....	40,834	39,519	73,071	36,404	35,591	45,407

---Denotes not available, unknown, or not applicable.

SOURCE: 1973, 1975, 1977 Official Trade of Brazil; 1974, 1976, and 1978 FAS Attache Reports.

July 1979

Commodity Programs, FAS, USDA

ORANGES, FRESH: EXPORTS FROM SOUTH AFRICA, 1973-78

(Metric Tons)

Country of Destination	Calendar Year					
	1973	1974	1975	1976	1977	1978
<b>EUROPE</b>						
Austria.....	2,436	2,865	2,985	2,389	2,683	3,396
Belgium-Luxembourg.....	14,771	16,527	12,542	13,668	11,910	16,033
Denmark.....	2,352	2,345	2,023	2,079	2,412	---
Finland.....	3,177	5,654	4,727	3,395	---	---
France.....	39,919	48,537	55,945	48,954	47,808	61,045
Germany, Fed. Rep.....	31,423	39,658	33,935	34,754	28,010	42,724
Iceland.....	362	263	530	533	---	---
Malta, Portugal, and Germany, Dem. Rep.....	450	548	---	---	---	---
Netherlands.....	17,493	19,702	16,292	20,918	16,595	19,505
Norway.....	8,493	6,874	5,998	5,488	5,027	---
Poland.....	2,647	1,598	---	---	---	---
Sweden.....	6,194	6,718	6,403	5,353	6,230	---
Switzerland.....	2,696	3,210	2,913	3,120	---	4,802
United Kingdom and Ireland..	69,065	78,739	78,639	73,601	1/ 66,402	1/ 84,003
Scandinavia.....	---	---	---	---	---	18,407
Other.....	---	---	2,415	236	---	900
Total.....	201,478	233,238	225,347	214,488	187,077	250,815
<b>OTHER COUNTRIES</b>						
Canada.....	10,386	8,763	9,847	8,000	5,528	11,642
Hong Kong.....	6,002	4,875	---	---	---	---
Japan.....	859	1,450	---	---	---	---
Mauritius.....	---	---	---	3,950	---	---
New Zealand.....	---	1,200	---	---	---	---
Far East.....	---	---	10,179	9,659	6,821	8,201
Middle East.....	---	---	56,905	76,289	88,268	94,520
Other.....	10,188	23,593	1,752	3,778	12,855	6,348
Total.....	27,435	39,881	78,683	101,676	113,472	120,711
Grand Total.....	228,913	273,119	304,030	316,164	300,549	371,526

---Denotes not available, unknown, or not applicable.  
1/ United Kingdom only.

SOURCE: Attache Reports

July 1979

Commodity Programs, FAS, USDA

TANGERINES, FRESH: EXPORTS FROM ARGENTINA, 1973-78  
(Metric Tons)

Country of Destination	Calendar Year					
	1973	1974	1975	1976	1977	1978
<u>EUROPE</u>						
France.....	31	---	---	---	---	---
Germany, Fed. Rep.....	---	22	---	---	---	---
Netherlands.....	73	42	---	43	12	331
Sweden.....	---	6	175	---	---	---
Other.....	---	---	10	---	---	---
Total.....	104	70	185	43	12	331
<u>OTHER COUNTRIES</u>						
Bolivia.....	---	19	---	---	---	---
Chile.....	7	56	---	---	---	---
Other.....	---	---	1	---	---	---
Total.....	7	75	1	---	---	---
Grand Total.....	111	145	186	43	12	331

---Denotes not available, unknown, or not applicable.

SOURCE: 1973-76 Official Trade of Argentina, 1977 and 1978 FAS Attache Reports.

July 1979

Commodity Programs, FAS, USDA

TANGERINES, FRESH: EXPORTS FROM BRAZIL, 1973-78  
(Metric Tons)

Country of Destination	Calendar Year					
	1973	1974	1975	1976	1977	1978
Finland.....	36	158	---	80	63	---
Netherlands.....	223	642	911	1,506	233	2,064
Sweden.....	---	26	---	95	---	---
United Kingdom.....	42	180	315	144	60	414
Other.....	---	---	---	---	---	106
Grand Total.....	301	1,006	1,226	1,825	356	2,584

---Denotes not available, unknown, or not applicable.

SOURCE: 1973, 1975, 1977 Official Trade of Brazil; 1974, 1976, 1978 Fas Attache Reports.

July 1979

Commodity Programs, FAS, USDA

LEMONS, FRESH: EXPORTS FROM ARGENTINA, 1973-78  
(Metric Tons)

Country of Destination	Calendar Year				
	1973	1974	1975	1976	1977
EUROPE					
Czechoslovakia.....	---	---	---	130	890
Finland.....	24	86	241	252	180
France.....	2,218	3,138	1,066	967	369
German , Dem. Rep.....	---	---	52	1,257	1,980
Germany, Fed. Rep.....	251	209	495	1,552	4,403
Hungary.....	---	---	---	217	1,416
Netherlands.....	1,268	1,487	1,611	648	2,117
Poland.....	799	2,047	6,306	5,533	5,688
Sweden.....	124	181	248	222	81
United Kingdom.....	374	567	126	---	---
Yugoslavia.....	---	---	---	236	---
Other.....	---	27	---	---	9
Total.....	5,058	7,742	10,145	11,014	17,133
OTHER COUNTRIES.....	27	1/ 145	---	---	---
Grand Total.....	5,085	7,887	10,145	11,014	17,133

---Denotes not available, unknown, or not applicable.  
1/ Includes 94 tons to Brazil.

SOURCE: 1973-76 Official Trade of Argentina, 1977 and 1978 FAS Attache Reports.

July 1979

Commodity Programs, FAS, USDA

LEMONS AND LIMES, FRESH: EXPORTS FROM BRAZIL, 1973-78  
(Metric Tons)

Country of Destination	Calendar Year					
	1973	1974	1975	1976	1977	1978
France.....	45	79	105	128	162	249
Germany, Fed. Rep.....	13	17	80	31	42	86
Hungary.....	---	---	---	85	---	---
Netherlands.....	177	50	128	2	49	163
United Kingdom.....	---	26	78	140	1	40
Others.....	---	---	18	14	8	31
Grand Total.....	235	172	409	400	262	569

---Denotes not available, unknown or not applicable.

SOURCE: 1973, 1975, 1977 Official Trade of Brazil, 1974, 1976, 1978 FAS Attache Reports.

July 1979

Commodity Programs, FAS, USDA

LEMONS, FRESH: EXPORTS FROM SOUTH AFRICA, 1973-78  
(Metric Tons)

Country of Destination	Calendar Year				
	1973	1974	1975	1976	1977
<b>EUROPE</b>					
Austria.....	1,485	1,573	1,792	1,786	2,216
Belgium-Luxembourg.....	692	650	1,033	584	536
Denmark.....	461	361	303	557	359
Finland.....	158	525	607	393	---
France.....	1,153	1,863	2,227	764	1,214
Germany, Fed. Rep.....	194	386	261	430	862
Netherlands.....	133	465	442	329	351
Norway.....	210	261	183	217	---
Sweden.....	232	313	454	417	339
Switzerland.....	66	120	---	543	1,270
United Kingdom and Ireland...	4,758	5,433	5,659	6,188	1/ 5,603
Scandinavia.....	---	---	---	---	---
Other.....	24	11	26	38	---
Total.....	9,566	11,961	12,987	12,246	12,750
<b>OTHER COUNTRIES</b>					
Canada.....	19	99	170	459	---
Far East.....	---	---	240	24	53
Middle East.....	---	---	472	479	1,247
Other.....	225	365	124	2/ 339	998
Total.....	244	464	1,006	1,301	2,298
Grand Total.....	9,810	12,425	13,993	13,547	15,048

---Denotes not available, unknown, or not applicable.  
1/ United Kingdom only. 2/ Includes 320 tons to Mauritius.

SOURCE: FAS Attache Reports

July 1979

Commodity Programs, FAS, USDA

GRAPEFRUIT, FRESH: EXPORTS FROM ARGENTINA, 1973-78  
(Metric Tons)

Country of Destination	Calendar Year				
	1973	1974	1975	1976	1977
<u>EUROPE</u>					
Belgium-Luxembourg.....	---	40	---	237	---
France.....	5,522	7,444	2,773	3,316	4,090
German , Dem. Rep.....	---	---	---	---	---
Germany, Fed. Rep.....	1,660	2,423	1,646	679	3,408
Italy.....	---	---	---	1,021	640
Netherlands.....	2,553	5,181	5,181	7,073	8,765
Sweden.....	61	78	27	52	---
United Kingdom.....	1,870	3,027	720	---	200
Other.....	---	17	---	---	---
Total.....	11,666	18,210	10,347	12,378	17,103
<u>OTHER COUNTRIES</u> .....	23	18	8	---	---
Grand Total.....	11,689	18,228	10,355	12,378	17,103

---Denotes not available, unknown or not applicable.

SOURCE: 1973-76 Official Trade of Argentina, 1977 and 1978 FAS Attache Reports.

July 1979

Commodity Programs, FAS, USDA

GRAPEFRUIT, FRESH: EXPORTS FROM SOUTH AFRICA, 1973-78  
(Metric Tons)

Country of Destination	Calendar Year					
	1973	1974	1975	1976	1977	1978
<u>EUROPE</u>						
Austria.....	870	1,044	1,248	950	1,139	1,482
Belgium-Luxembourg.....	2,152	2,252	3,426	2,905	2,582	2,721
Denmark.....	506	422	493	462	586	---
Finland.....	765	1,095	1,139	912	---	---
France.....	9,444	7,560	9,728	9,149	7,518	11,043
Germany, Fed. Rep.....	11,744	13,808	15,491	11,369	11,952	13,431
Italy, Malta, and Portugal.....	7,510	5,504	---	1/ 3,386	2/ 3,729	1/ 5,731
Netherlands.....	908	890	2,094	1,910	1,741	1,438
Norway.....	478	410	440	448	562	---
Sweden.....	1,278	1,079	1,066	785	1,013	---
Switzerland.....	1,702	1,642	1,450	1,264	1,142	1,212
United Kingdom and Ireland...	22,536	21,370	16,400	20,987	3/ 14,277	3/ 19,235
Scandinavia.....	---	---	---	---	---	3,341
Other.....	16	7	6,596	17	---	168
Total.....	59,909	57,083	59,571	54,544	46,241	59,802
<u>OTHER COUNTRIES</u>						
Canada.....	1,160	1,318	540	615	202	705
Japan.....	116	2,194	---	3,865	4/ 5,034	---
Far East.....	---	---	1,620	104	---	3,995
Middle East.....	---	---	122	236	176	24
Other.....	180	256	147	85	3,115	90
Total.....	1,456	3,768	2,429	4,905	8,527	4,814
Grand Total.....	61,365	60,851	62,000	59,449	54,768	64,616

---Denotes not available, unknown, or not applicable.

1/ Italy only. 2/ Excludes Portugal. 3/ United Kingdom only. 4/ Includes Far East.

SOURCE: Attache Reports.

July 1979

Commodity Programs, FAS, USDA

ORANGE JUICE, CONCENTRATED: EXPORTS FROM BRAZIL, 1973-78  
(Metric Tons)

Country of Destination	Calendar Year				
	1973	1974	1975	1976	1977
United States.....	10,983	23,112	20,609	16,675	46,807
EUROPE					
Austria.....	---	---	---	---	37
Belgium-Luxembourg.....	1,322	1,626	2,142	4,382	2,146
Denmark.....	834	530	1,079	4,282	5,789
Finland.....	1,086	929	3,050	6,090	4,961
France.....	696	240	200	240	40
German, Dem. Rep.....	---	---	100	1,410	1,200
Germany, Fed. Rep.....	55,291	33,875	44,115	43,497	31,388
Netherlands.....	26,064	20,658	42,880	67,268	53,225
Norway.....	396	668	1,211	1,520	1,714
Poland.....	851	750	3,849	3,573	2,649
Spain.....	450	326	4,307	2,493	3,979
Sweden.....	10,381	15,346	16,130	18,266	19,359
Switzerland.....	314	202	718	284	413
United Kingdom.....	456	592	4,218	5,408	7,713
Yugoslavia.....	---	---	100	---	---
Other.....	1	---	2	---	---
Total.....	98,142	75,742	124,101	158,713	134,613
OTHER COUNTRIES					
Australia.....	---	212	1,590	510	351
Canada.....	8,793	7,446	21,119	15,836	20,688
Chile.....	---	---	---	---	235
Israel.....	2,671	1,100	8,914	14,505	5,642
Japan.....	105	123	296	340	246
Paraguay.....	130	---	---	100	1
South Africa.....	160	---	---	---	53
Venezuela.....	---	725	4,247	3,162	4,888
Other.....	6	---	21	---	---
Total.....	11,865	9,606	36,187	34,453	32,104
Grand Total.....	120,990	108,460	180,897	209,841	213,524

---Denotes not available, unknown, or not available.

1/ Includes 156 tons to Lebanon and 130 tons to Argentina.

SOURCE: 1973, 1975, 1977 Official Trade of Brazil; 1974, 1976, 1978 FAS Attache Reports.

July 1979

Commodity Programs, FAS, USDA

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fresh and processed citrus fruits

FCF 1-79  
February 1979

## NORTHERN HEMISPHERE CITRUS PRODUCTION DOWN IN 1978/79

Citrus output of leading Northern Hemisphere producing countries in 1978/79 is placed at 27.0 million tons, 6 percent below the level of last season. The most notable declines will occur in orange and lemon production, down 4 and 18 percent, respectively, because of unfavorable weather conditions in Spain, Italy, and the United States.

Likewise, adverse weather in the United States as well as in Belize has affected this season's grapefruit crop. Tangerine outturn is also down, primarily because of a reduction in the area planted to Mikans in Japan.

Trade in fresh citrus by the Northern Hemisphere nations was mixed during the 1977/78 season. Compared with the previous year's level, exports of oranges and grapefruit declined because of tight domestic supplies in Italy, the United States, and Israel. Substantial gains by Spain and Morocco pushed tangerine exports up. Lemon exports rose slightly—despite reductions from the United States and Italy—because of a sharp increase in sales by Spain, Greece, and Turkey.

The Northern Hemisphere accounts for approximately three-fourths of total annual world citrus production. This circular covers the citrus situations in Belize, Cyprus, Egypt, Greece, Israel, Italy, Japan, Mexico, Morocco, Spain, Turkey, and the United States. All tons are metric, and are equivalent to approximately 2,204.6 pounds.

### Belize

**Production.** Production prospects for the 1978/79 season were bright until hurricane Greta struck the citrus groves in the Stan Creek Valley on September 18, 1978. The grapefruit crop was severely damaged

as the harvest had been underway for only 2 weeks. At best, grapefruit production may reach 4,000 tons. Devastation to the orange crop was less severe and output is currently placed at 22,450 tons.

Despite this year's losses, higher prices during the past two seasons have provided some cushion to the growers. The industry anticipates a bumper crop in the 1979/80 season as the trees are expected to bear heavily following the shock they received from the hurricane.

**Marketing.** More than 90 percent of Belize's citrus production is processed into orange and grapefruit concentrates, segments, and oils. During the 1978/79 season, Belize's processing plants are expected to produce 400,000 gallons (65° Brix) of orange concentrate and 36,000 gallons (58° Brix) of grapefruit concentrate, down 25 to 75 percent, respectively, from the previous year's level. The industry plans to export all of its concentrate production to Trinidad and Tobago.

An estimated 815 tons of grapefruit are available for production of canned sections this season. Some of this output will continue to be exported to the United Kingdom. Production of orange and grapefruit oils is placed at 100,000 and 6,000 pounds, respectively, down 19 and 75 percent from that of the 1977/78 season.

### Cyprus

**Production.** Citrus production in the 1978/79 season is placed at 202,000 tons, slightly below last year's crop. Lemon production is expected to fall sharply to 24,000 tons because of an infestation of the flower moth in the Dimassol and Kryenia areas. The orange and grapefruit crops are expected to remain near last year's levels of 109,000 and 66,000 tons, respectively.

Citrus output should increase during the next few years, especially in the southern sector of the island. Government irrigation projects in the Paphos area are underway and when completed in 1981, will provide water for an additional 12,000 acres, which probably

will be planted to vegetables, citrus, and avocados. Citrus production in this area is expected to reach 65,000 tons by the mid-1980's, compared with present annual output of 4,000 tons.

**Marketing.** The citrus industry continues to rely heavily on its export market. Of the 70,900 tons of fresh citrus exported from the southern sector last season (26,552 tons of oranges, 35,215 tons of grapefruit, and 8,440 tons of lemons), 74 percent was shipped to the European Community (primarily to the United Kingdom) and 24 percent to East European countries. In 1978/79, citrus exports from the southern sector are expected to decline slightly to 68,890 tons. No official data are available for the northern portion of Cyprus but it is estimated that about 81,000 tons will be exported from this sector, mainly to Western Europe.

Following the troubles of 1974, an incongruity has developed. Most of the processing capacity is in the south, while the majority of surplus fruit is in the north. Since no trade exists between the Greek and Turkish sectors, the south has been so short of culls for processing that it processed only 11,861 tons in 1977/78.

In the northern sector, there are only two very small, antiquated processing plants with a combined capacity of 50 tons of fresh fruit per day. However, a new plant in Morphu, when completed, will have the capacity to process 40,000 tons of fresh fruit annually.

## Egypt

**Production.** Egypt's 1978/79 citrus crop, consisting almost entirely of sweet oranges, mandarins, and limes is placed at 827,000 tons, 4 percent above last year's crop, but 18 percent below the record 1975/76 outturn. Last season's short crop was because of hot dry winds during the fruit-setting period.

Recent plantings of sweet oranges and mandarins have increased Egypt's total citrus area since 1974/75 (see table below). Citrus production has been identified as very profitable with good export potential. However, high initial costs and lack of arable land are

limiting expansion to large agribusiness firms with advanced management techniques. Recently, the Egyptian Government and two large corporations made plans to reclaim about 12,600 hectares of desert land for citrus. This land is expected to yield several thousand tons of additional citrus, mostly oranges for export, by 1990.

**Marketing.** Fresh orange exports normally account for about a quarter of production while shipments of other fresh citrus annually amount to about 1,000 tons each. Most citrus exports are marketed by one public sector company and are destined primarily for the Middle East and Iran. Second-grade qualities are shipped to Eastern Europe and the USSR.

The amount of citrus processed is still very small and represents less than one percent of total production. About 4,000 tons of oranges were processed last season, primarily into single strength orange juice. Almost all of the output was exported to the Middle East countries.

## Greece

**Production.** The 1978/79 orange outturn, consisting of about 70 percent Washington Navels, is placed at 600,000 tons, 40 percent greater than the previous year's frost-damaged crop. The expected increase results from new trees entering the production stage, as well as recovery from last year's poor crop.

On the other hand, the lemon outturn is expected to fall one-tenth from last season's level because of unusually dry weather that affected the fruit set. The Maglino, Karystino, and Adamopoulou varieties comprise 48, 23, and 6 percent, respectively, of lemon production.

**Marketing.** Because of weaker demand from the East European countries and Austria, exports of oranges fell moderately in 1977/78 to 197,059 tons. Shipments to the EC (primarily to West Germany) jumped 175 percent to 40,676 tons, reportedly because of lack of confidence in the purity of Spanish oranges following the alleged discovery of poisoned Spanish oranges in West German retail outlets. Because of the continued lack of purchasing interest in

EGYPT: CITRUS AREA, 1974/75-1978/79

(thousand hectares)

Fruit	1974/75		1976/77		1978/79	
	Bearing	Total	Bearing	Total	Bearing	Total
Sweet oranges . . . . .	43	55	45	64	47	66
Mandarins . . . . .	—	6	5	6	5	7
Limes . . . . .	—	—	3	4	3	5

— Denotes not available, unknown, or not applicable.

Eastern Europe, orange exports in 1978/79 are expected to remain near last year's level.

Lemon exports during 1977/78 reached 100,093 tons, up 32 percent from the previous season's because of extremely high demand from Eastern Europe and the USSR, which together accounted for 90 percent of the shipments. Foreign demand for Greek lemons is expected to further increase in 1978/79 because of the poor crops in Italy and Spain.

Quantities of oranges, lemons, and tangerines for juice production are not expected to exceed 100,000, 5,000, and 5,000 tons, respectively, during the 1978/79 season. Normally about two-thirds of the orange and lemon juice produced is shipped to Eastern Europe and Russia. Domestic consumption of these products is insignificant.

### Israel

**Production.** Israel's 1978/79 citrus crop is pegged at 1.48 million tons, slightly above last season's short crop, but below the 1976/77 output. Production of Valencias and grapefruit is expected to rebound to 320,000 and 470,000 tons, respectively, with satisfactory-to-excellent yields anticipated in all major producing areas. The Shamouti orange outturn is forecasted 6 percent below the previous year's output and 29 percent below the level reached in 1973/74. Urban encroachment and the Government's policy of converting marginal citrus areas to other crops are primarily responsible for the decline in the production of the Shamouti orange in recent years.

**Marketing.** Israel is highly dependent on foreign markets, as 90 percent of its production is exported in either the fresh or processed forms. Exports of

fresh citrus in 1977/78 totaled 887,600 tons (621,000 tons of oranges, 251,300 tons of grapefruit, and 15,300 tons of lemons). Aside from some shipments of oranges to Singapore and some grapefruit to Japan, virtually all of Israel's exports of fresh citrus are to Europe. The EC took 64 percent of these shipments in 1977/78, led by the United Kingdom and West Germany.

The total quantity of citrus processed last year declined marginally despite the increase in oranges processed to 251,000 tons. About 455,700 tons of grapefruit and 29,200 tons of lemons were processed, down 6 and 14 percent, respectively from 1976/77.

### Italy

**Production.** The 1978/79 Italian citrus crop is placed at 2,307,600 tons (1,394,000 tons of oranges, 600,000 tons of lemons, 305,000 tons of tangerines, and 2,600 tons of grapefruit), down 16 percent from the previous year's estimate principally because of a prolonged drought accompanied by hot dry winds during the fruit setting period.

The figures in the following table show that citrus area, consisting mainly of oranges, has not changed significantly over the past few seasons. "Specialized" orange area (area planted only to oranges) has increased about 1 percent since 1973/74 but is not expected to expand significantly in the near future, despite the current high prices for fresh oranges. Area planted to lemons also has remained relatively static in recent years and is not expected to increase any time soon. However, with better control of "Mal secco," a disease that drastically reduces yields,

### ITALY: CITRUS AREA

(In hectares)

Fruit	1973/74	1975/76	1977/78
Oranges:			
Specialized . . . . .	99,990	100,242	101,277
Diversified . . . . .	18,486	18,386	17,943
Lemons:			
Specialized . . . . .	35,486	35,034	34,970
Diversified . . . . .	10,544	10,562	10,414
Tangerines:			
Specialized . . . . .	21,224	20,665	22,839
Diversified . . . . .	15,720	14,829	13,073
Grapefruits:			
Specialized . . . . .	104	148	162
Diversified . . . . .	12	12	12
Total specialized . . . . .	156,804	156,089	159,248
Total diversified . . . . .	44,762	43,249	41,442
Grand total . . . . .	201,566	199,338	200,690

lemon production could improve. Specialized tangerine area has risen nearly 11 percent since 1975/76 because of new trees entering the bearing stage.

**Marketing.** Since the Italian citrus industry holds a monopoly on the domestic market, prices are at very high levels. Such prices have rendered Italian citrus less competitive in international markets even with substantial help from the EC's subsidy programs. Penetration (export) and processing subsidies for 1978/79 are shown in the following table.

Lemon exports during 1977/78 dropped 24 percent from the previous season's total to 178,690 tons. Eastern Europe took 66,043 tons (-27 percent) and West Germany took 58,730 tons (-11 percent). Lemon shipments during 1978/79 are expected to drop further to 150,000 tons.

Orange exports, mainly Bloods, fell 44 percent in 1977/78 to 139,500 tons. As usual, West Germany was the leading customer with 38,621 tons (-40 percent) followed by Switzerland with 28,761 tons (-25 percent). This year's exports are expected to reach only 120,000 tons.

Italy's processing sector is based mainly on essential oil and orange juice production. The EC's processing subsidies for oranges and lemons are designed to encourage processing of these fruits, yet no new processing plants have been constructed recently. During the 1977/78 season, the industry processed 235,000 tons of oranges, 120,000 tons of lemons, 9,000 tons of mandarins, and 21,500 tons of Bergamot oranges.

## Japan

**Production.** According to the Ministry of Agriculture, Forestry, and Fisheries (MAFF), Mikan produc-

tion in 1978/79 will fall 12 percent from the previous year's level to 3,097,000 tons. The lower outturn is primarily attributed to a decline in the total fruit bearing area and to low temperatures that prevailed during maturation of the fruit.

Following a highly expansionary planting period from 1963 through 1974, production of Mikans is leveling off. Because of low prices and limited market alternatives, the Japanese have implemented acreage diversion and crop thinning programs to curb production. Area planted to Mikans is to be reduced by 30,000 hectares, or 20 percent of the current total, during the next 3 years.

Production of Navel oranges is relatively small but has grown gradually in recent years, as they replace the Mikan. This season's Navel crop is expected to reach 16,000 tons, 4 percent above last year's output and 31 percent above the 1973/74 level. The outturn of Summer oranges (Natsu-Mikan), a sour variety, harvested in February and March is expected to decline slightly to 315,000 tons. Lemon output is placed at 800 tons.

**Marketing.** Exports of fresh Mikans (shipped during November and December) totaled 21,970 tons last season, up 2,000 tons from the 1976/77 level. Canada took 19,190 tons (87 percent of shipments) followed by the United States with 880 tons. Fresh Mikans are currently allowed to be marketed in only six U.S. States; Washington, Oregon, Montana, Idaho, Alaska, and Hawaii.

Exports of canned Mikan sections have been declining in recent years because of keen competition from Spain and Taiwan and high export prices following appreciation of the yen. The United States was again Japan's leading market for canned Mikans, taking 22,166 tons or 57 percent of total shipments

## SUBSIDIES PAID FOR ITALIAN CITRUS, 1978/79 SEASON

(lire per 100 kilograms)<sup>1</sup>

Fruit	Export Subsidies		Processing Subsidy
	EC Members	Third Countries	Processing
Oranges			
Moro, torocco . . . . .	103	92	<sup>2</sup> 92
Sanguinello . . . . .	88	92	<sup>3</sup> 48
Biondo commune . . . . .	58	51	<sup>4</sup> 65
Sanguigno commune . . . . .	58	51	<sup>4</sup> 97
Clementines . . . . .	51	69	<sup>5</sup> —
Mandarins . . . . .	88	69	<sup>5</sup> —
Lemons . . . . .	63	40	<sup>6</sup> 72

<sup>1</sup> Lire subsidy calculated at the green lira/unit of account exchange rate in effect in November 1978 (1154 lire/unit of account). <sup>2</sup> Linked to a minimum purchase price of 123 lire per 100 kilograms. <sup>3</sup> Linked to a minimum purchase price of 80 lire per 100 kilograms. <sup>4</sup> Linked to a minimum purchase price of 97 lire per 100 kilograms. <sup>5</sup> No processing subsidies in effect. <sup>6</sup> Linked to a minimum purchase price of 118 lire per 100 kilograms.

in calendar 1977; West Germany followed with 9,559 tons.

Japan continues to rely heavily on imports to satisfy domestic demand for citrus. Lemon imports (virtually all from the United States) are expected to be a record 115,000 tons in 1978 and increase further in 1979. On the other hand, grapefruit imports for 1978 are placed 10 percent below the 1977 level of 161,242 tons because of excessive diphenyl residue levels on imported grapefruit in late 1977.

Imports of fresh oranges, orange juice, and grapefruit juice continue to be bound by stringent quotas. However, under the Strauss-Ushiba agreement of January 13, 1978, Japan agreed to expand the fresh orange import quota from 18,000 tons in Japanese fiscal year 1977 (April 1, 1977-March 31, 1978) to 45,000 tons in JFY 1978. The citrus juice quota was also increased to 4,000 tons (3,000 tons of orange juice and 1,000 tons of grapefruit juice). Recent negotiations call for a further increase in the fresh orange import quota to 82,000 tons by JFY 1983. Orange and grapefruit juice quotas are expected to increase to 6,500 and 6,000 tons, respectively, the same year.

## Mexico

**Production.** Still feeling the effects of last year's prolonged drought and high temperatures, the combined 1978/79 season production of oranges, tangerines, and grapefruit in the four major citrus producing States of Veracruz, Nuevo Leon, Tamaulipas, and San Luis Potosi is expected to rise only slightly above the 1977/78 crop. These four States account for approximately 90 percent of Mexico's annual citrus output.

Orange production is placed at 686,700 tons, up slightly from last year's outturn, but 40 percent below the 1976/77 crop. Only Veracruz is expecting an increase. The tangerine crop is pegged at 96,400 tons, with gains expected in all States except San Luis Potosi.

Production of grapefruit is forecast at 39,600 tons, 8 percent below last season's crop and 21 percent below the 1976/77 crop. Grapefruit production, however, should increase substantially over the next few years. An estimated 25,000 Ruby Red and 25,000 Star Ruby trees were recently planted in the State of Tamasco.

**Marketing.** Presently, there are 30 packing sheds in Mexico (25 of them in the State of Nuevo Leon). Only export quality fruit enters these plants. About 25 percent of Nuevo Leon's orange output is exported, principally to the United States, Canada, and Europe. Tangerine exports account for about a quarter of production and are shipped only to the United States and Canada.

Exports of grapefruit normally amount to 10,000-15,000 tons annually and are shipped primarily to Japan and West Europe. Some grapefruit from Veracruz State enters the United States in August before the Florida and Texas marketing seasons are underway.

The processing sector is becoming increasingly important. Presently, there are six processing plants in Mexico with a seventh plant under construction by CONAFRUT, a Federally supported agency designed to provide technical assistance to fruit growers. This new plant is expected to produce 3 million tons of fruit juice (two-thirds orange) annually and export 90 percent of its output to Eastern Europe, Canada, West Germany, and Australia. Another processing plant, Citro-Mexico, Inc., is expanding its processing capacity to 160,000 tons of fresh fruit per year by installing a new 30,000-pound evaporator.

## Morocco

**Production.** According to the Citrus Grower's Association (ASPAM), production in 1977/78 rose sharply for the second consecutive year, setting a record of 1.07 million tons. The 1978/79 season outlook is for a slightly lower outturn of 1.01 million tons, primarily because of reduced production of late variety oranges.

During the 1972/73 season, ASPAM and the Office of Commercialization and Exportation (OCE) declared certain varieties of citrus unsuitable for export and initiated a program to uproot the Wilking, Fine, and the Monreal varieties and plant more exportable varieties such as the Navel and the Clementine. Consequently, total area in citrus has been reduced to 66,000 hectares, compared with 74,000 hectares in 1972/73.

**Marketing.** In 1977/78, exports of fresh citrus gained for the second consecutive year, reaching 671,300 tons. Shipments were still below those of the early 1970's, but are clearly rebounding. Citrus now ranks second only to phosphates as a foreign exchange earner in Morocco.

Exports of oranges totaled 506,559 tons in 1977/78 (176,319 tons to the USSR, 107,749 tons to France, and 92,648 tons to West Germany) while Clementine shipments totaled 163,104 tons (57,827 tons to France, 43,717 tons to West Germany, and 14,054 tons to the USSR). Exports of grapefruit and lemons totaled 962 and 588 tons, respectively.

Given the bumper crop, citrus processed jumped to 192,000 tons (mainly oranges) in 1977/78 compared with 107,000 tons a year earlier. Most is processed into juice for export, mainly to France and West Germany.

Seven of Morocco's largest processing plants have a total annual capacity of 182,000 tons of fruit. One of

these plants is currently expanding its production capacity, but there are no plans to construct any new plants.

## SPAIN

**Production.** The Spanish Ministry of Agriculture places the 1978/79 citrus crop at 2,720,854 metric tons (1,612,699 tons of oranges, 859,847 tons of tangerines, 238,906 tons of lemons, and 9,402 tons of grapefruit), 4 percent below last season's output. The decline is principally in lemons and Blood oranges, down 24 and 31 percent, respectively, mainly because of defective flowering after low temperatures in February and March.

tangerines, 228,000 tons of lemons, and 5,090 tons of grapefruit), 9 percent above the previous year's level. Because of smaller quantities of oranges and lemons available for export, trade sources expect citrus exports to fall 7 percent in 1978/79. Other factors expected to reduce shipments are the re-evaluation of the peseta, a 20 - 25 percent increase in input costs that entails a similar increase in the selling price, the large apple crop in the EC, and the relatively high inflation rate in the EC.

Processing accounted for about 13 percent of production during the 1977/78 season. Processing capacity at 400,000 tons remains unchanged from that of the past few seasons. Output in 1977/78 reached 63,000 tons of juices (two-thirds orange

### SPAIN: CITRUS AREA, 1974/76

(In hectares)

Fruit	1974	1975	1976
<b>Oranges</b>			
Navels . . . . .	92,454	93,606	93,260
White, select . . . . .	15,123	15,262	15,303
White, common . . . . .	7,128	6,897	6,778
Blood . . . . .	11,878	11,026	10,648
Late Varieties (Verna and late Valencia) . . . . .	18,461	18,356	18,042
<b>Total . . . . .</b>	<b>145,044</b>	<b>145,147</b>	<b>144,031</b>
<b>Tangerines</b>			
Satsumas . . . . .	25,427	25,227	26,540
Clementines . . . . .	24,731	26,323	26,895
Other (Common, Wilkings, etc.) . . . . .	2,451	2,205	2,267
<b>Total . . . . .</b>	<b>52,609</b>	<b>53,755</b>	<b>55,702</b>
<b>Lemons</b>			
Verna . . . . .	19,837	20,892	20,914
Mesero . . . . .	3,783	4,441	5,424
Other Lemons . . . . .	1,327	1,437	1,372
<b>Total . . . . .</b>	<b>24,947</b>	<b>26,770</b>	<b>27,710</b>

The area planted to citrus has trended upward in recent years and was placed at 27,710 hectares in 1976 (see table above). From 1974 to 1976, the decline in the area devoted to oranges, mainly Bloods, was not large enough to offset the gains in the area devoted to tangerines and lemons.

**Marketing.** Spain is the world's largest exporter of fresh oranges and tangerines, and a principal supplier of lemons. About 90 percent of its exports of fresh citrus are to the European Community, which extends a 40 percent duty preference to Spanish imports.

Citrus exports during 1977/78 totaled 1,756,213 tons (915,301 tons of oranges, 607,822 tons of

juice), 66,505 tons of sections (mostly Satsumas in syrup), and 180 tons of oils.

## TURKEY

**Production.** The 1978/79 citrus production forecast indicates higher outturn of oranges and lower output of lemons, tangerines, and grapefruit compared with the previous season's levels. Sweet orange production, accounting for 62 percent of Turkey's citrus crop, is pegged at 650,000 tons, 8 percent higher than in 1977/78.

The number of all types of citrus trees has steadily increased over the past few seasons. Recent plantings

indicate that as much as 20 percent of Turkey's citrus trees may be in the nonbearing or the limited-bearing stage. The figures in the table below show a substantial rise in tangerine and lemon tree numbers since the 1969/70 season.

**Marketing.** U.S. exports of fresh citrus declined substantially in 1977/78. Orange shipments totaled 334,973 tons, down 16 percent from the previous year's. Canada, the largest customer, accounting for nearly half of the market, reduced its purchases by

#### TURKEY: CITRUS TREE NUMBERS IN SELECTED SEASONS

(thousands of trees)

Item	1969/70	1976/77	1977/78	1978/79
Oranges . . . . .	7,718	8,475	8,870	9,000
Tangerines . . . . .	2,585	4,250	4,350	4,400
Lemons . . . . .	1,502	2,800	3,170	3,300
Grapefruit . . . . .	88	213	234	240
Sour Orange . . . . .	525	580	735	750

**Marketing.** Exports of fresh citrus account for about 15 percent of total production, with lemons the predominant export variety. During the 1977/78 marketing year, lemon exports increased substantially from the previous year's level of 77,116 tons and were shipped primarily to Romania, the USSR, Yugoslavia, and Poland. Orange and tangerine exports, on the other hand, fell sharply by 64 and 20 percent, respectively. The severe drop in orange exports followed Iran's decision to restrict imports of oranges in an effort to protect its domestic market.

Only about 10 percent of citrus production is used for processing. Official information on production and utilization of citrus products is not available.

#### UNITED STATES

**Production.** According to a January 11, 1979 report by the USDA Crop Reporting Board, the 1978/79 citrus crop will total 12,107,000 tons (8,136,000 tons of oranges, 589,000 tons of tangerines, 758,000 tons of lemons, and 2,624,000 tons of grapefruit), 6 percent less than last season's level. The lower forecast is primarily the result of a mid-December freeze in California that severely affected the Navel, Valencia, and lemon crops. About 82 percent of the oranges, 88 percent of the tangerines, and 75 percent of grapefruit produced will come from Florida; all the lemon production will originate from California and Arizona.

nearly 12 percent. This decline, coupled with reduced shipments to Europe, was offset by a 94 percent increase in exports to Japan.

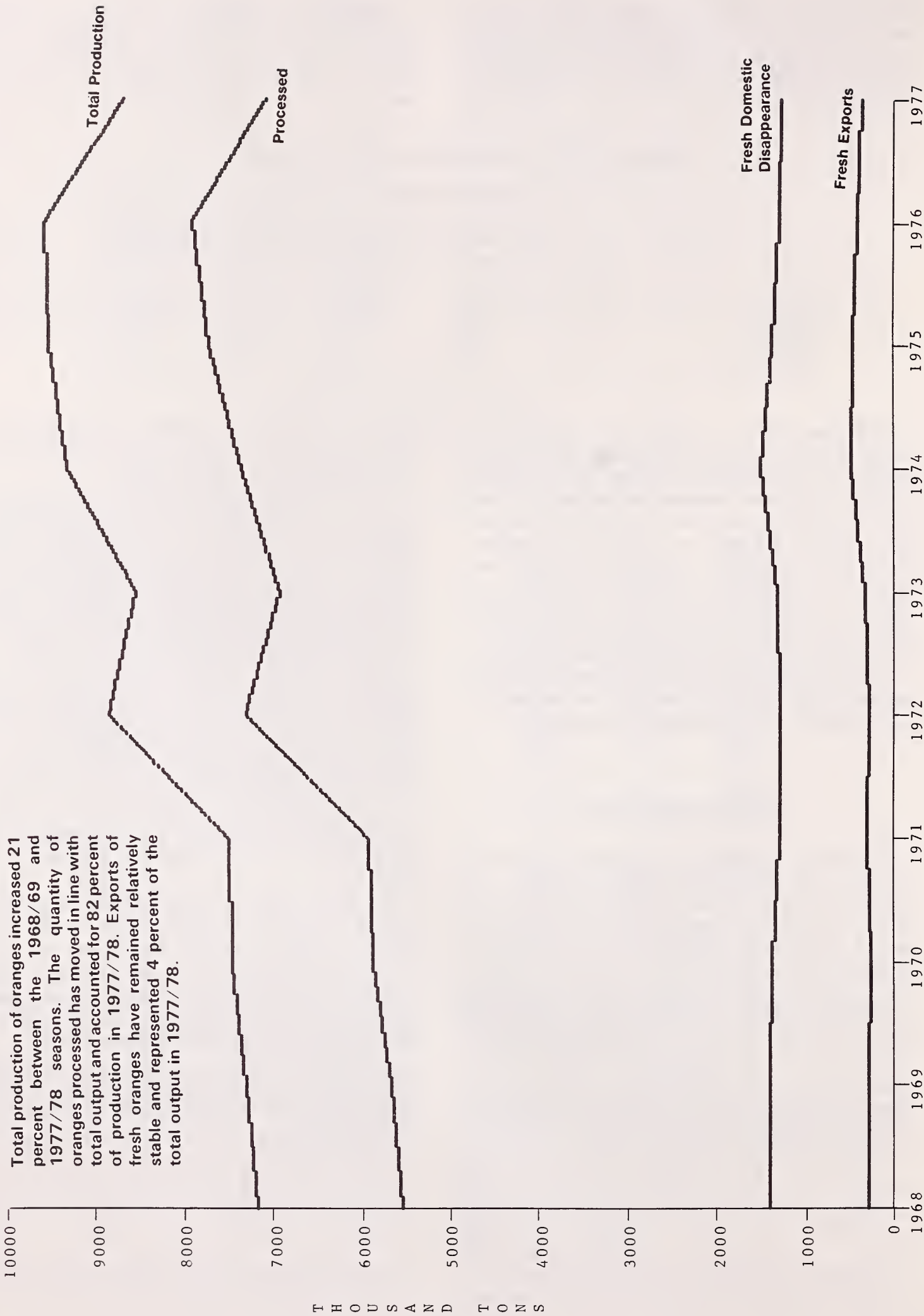
Lemon exports, accounting for 23 percent of production, fell sharply last season despite a record shipment of 108,772 tons to Japan. The overall decrease resulted from a 34 percent drop in European purchases. Exports of grapefruit fell 9,215 tons to 265,162 tons. Reduced purchases from Japan offset larger grapefruit shipments to Canada and Europe.

Approximately 82 percent of the oranges, 60 percent of the grapefruit, and 56 percent of the lemons were processed during the 1977/78 season. Most of the processed oranges were from Florida and were processed into frozen concentrated orange juice (FCOJ). The Florida pack of FCOJ rose slightly to 161.2 million gallons because of a larger juice yield of 1.23 gallons of 45° Brix concentrate per box compared with 1.07 gallons per box a year earlier. The 1978/79 juice yield is estimated at 1.29 gallons per box.

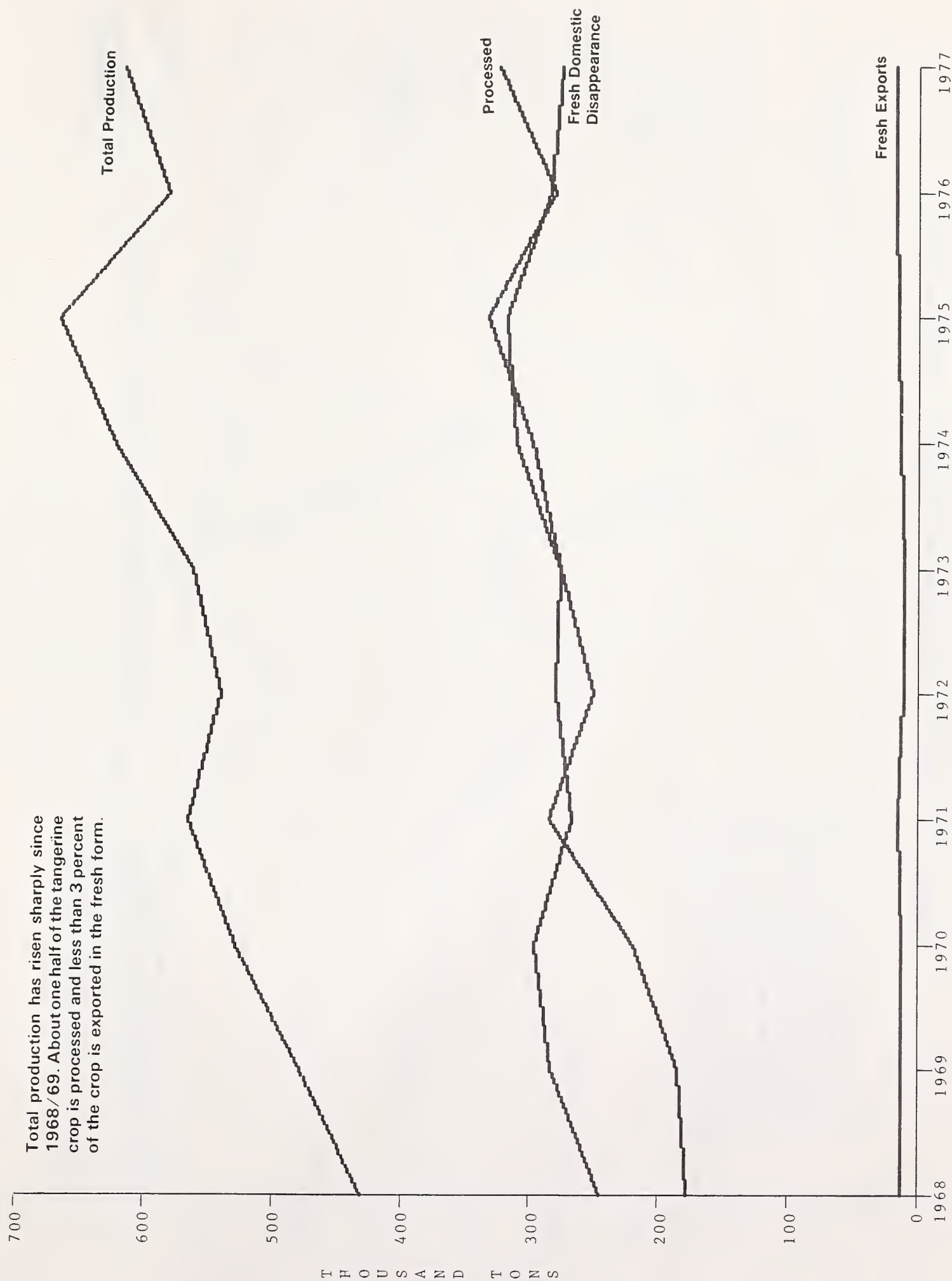
The United States is now a net importer of FCOJ. Imports, during the 1977/78 season, mainly from Brazil and Mexico, increased 244 percent over those of the previous year to 27.75 million gallons. Exports declined 21 percent to 9.41 million gallons. Canada purchases about one-half of these shipments and Western Europe absorbs most of the remainder.

This circular was prepared by John H. Wilson of the Horticultural and Tropical Products Division, CP, (202) 447-2974.

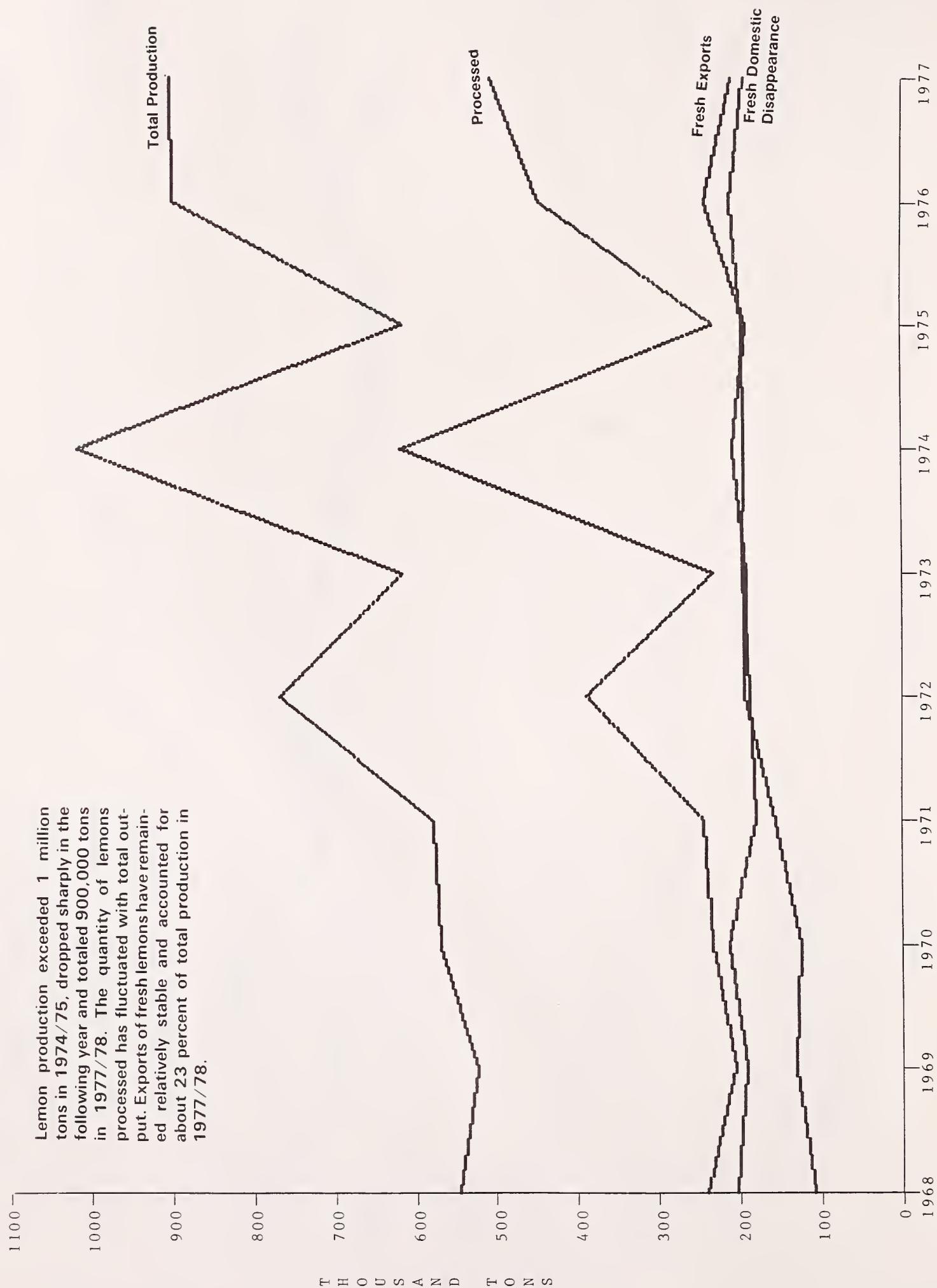
# Oranges: U.S. Production, Utilization, and Disposition, 1968/69-1977/78



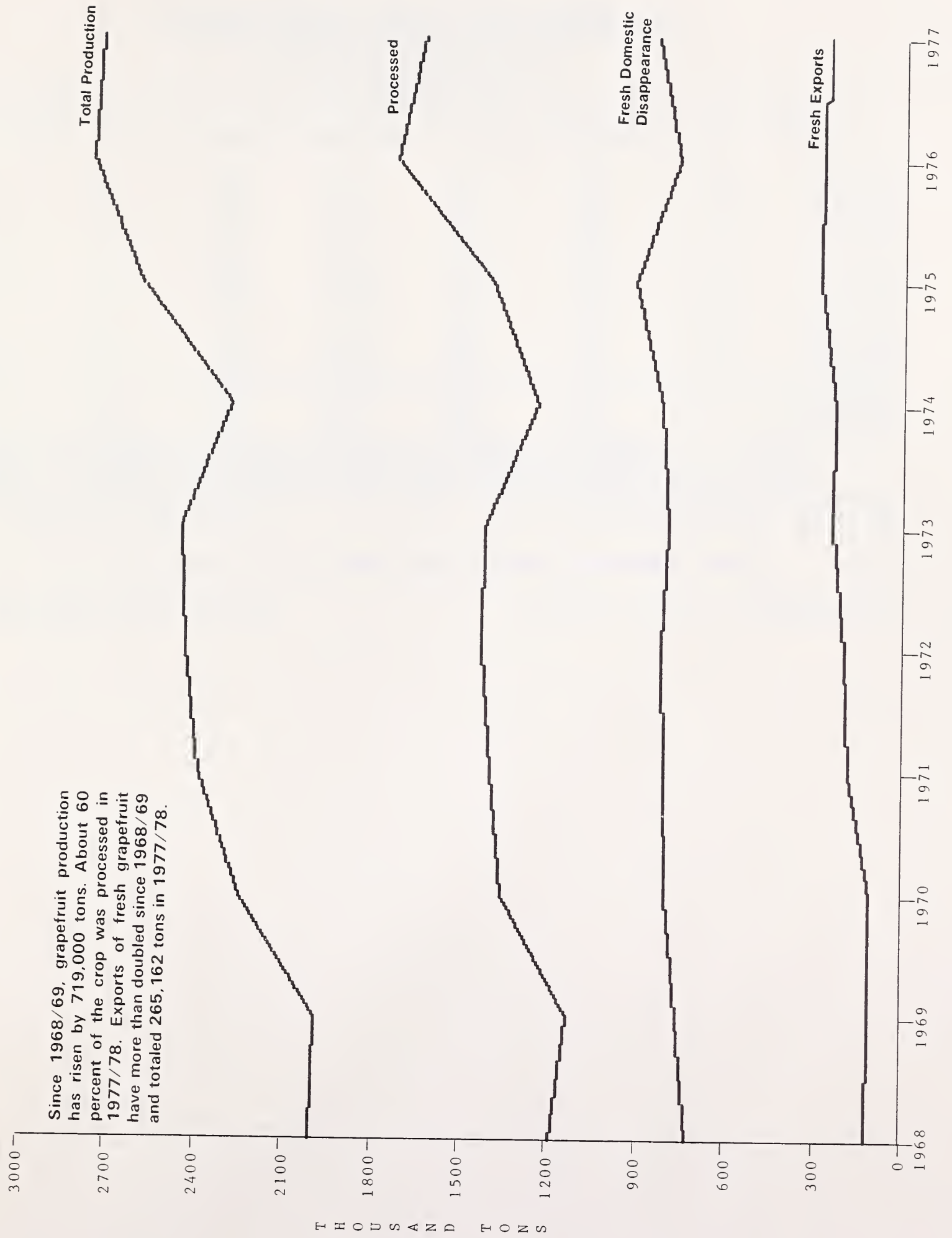
# Tangerines: U.S. Production, Utilization, and Disposition, 1968/69-1977/78



# Lemons: U.S. Production, Utilization, and Disposition, 1968/69-1977/78



# Grapefruit: U.S. Production, Utilization, and Disposition, 1968/69-1977/78



SWEET ORANGES, FRESH: PRODUCTION IN SELECTED  
NORTHERN HEMISPHERE COUNTRIES, 1973/74-1978/79  
(Thousand metric tons)

Country	Crop Year					
	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79 <sup>1/</sup>
Belize.....	47	39	29	26	28	22
Cyprus <sup>2/</sup> .....	173	157	83	100	109	113
Egypt.....	767	819	856	755	671	700
Greece.....	393	576	533	499	429	600
Israel.....	1,223	1,016	995	968	949	975
Italy.....	1,557	1,763	1,580	1,900	1,592	1,394
Jamaica.....	25	53	42	28	22	20
Japan.....	12	14	15	15	15	16
Mexico <sup>3/</sup> .....	966	955	835	1,142	679	687
Morocco.....	629	477	532	584	805	721
Spain.....	2,060	1,888	1,991	1,781	1,718	1,613
Turkey.....	470	500	540	545	600	650
United States.....	8,515	9,294	9,519	9,567	8,643	8,136
Total.....	16,837	17,551	17,550	17,910	16,260	15,647

<sup>1/</sup> Preliminary. <sup>2/</sup> Includes Tangerines. <sup>3/</sup> States of Nuevo Leon, San Luis Potosi, Tamaulipas, and Veracruz only.

SOURCE: U. S., Crop Reporting Board; ALL other countries, FAS Attache Reports.

January 1979

Commodity Programs, FAS, USDA

TANGERINES, FRESH:<sup>1/</sup> PRODUCTION IN SELECTED  
NORTHERN HEMISPHERE COUNTRIES, 1973/74-1978/79  
(Thousand metric tons)

Country	Crop Year					
	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79 <sup>2/</sup>
Egypt.....	89	99	97	85	76	80
Greece.....	29	34	34	34	26	29
Italy.....	334	334	351	358	352	305
Jamaica.....	4	13	6	2	4	4
Japan.....	3,852	3,939	4,219	3,560	4,104	3,647
Mexico <sup>3/</sup> .....	122	156	70	141	71	96
Morocco.....	190	106	120	200	250	271
Spain.....	600	591	652	685	796	860
Turkey.....	84	112	105	126	135	130
United States.....	559	619	664	577	613	589
Total.....	5,863	6,003	6,318	5,768	6,427	6,011

<sup>1/</sup> Tangerines include the following varieties: Mandarins, Clementines, Mikans, Satsumas, Wilkings, Fines, Monreals, and Summer oranges (Natsu-Mikan, a variety grown in Japan). <sup>2/</sup> Preliminary. <sup>3/</sup> States of Nuevo Leon, San Luis Potosi, Tamaulipas and Veracruz only.

SOURCE: U.S., Crop Reporting Board; ALL other countries, FAS Attache Reports.

January 1979

Commodity Programs, FAS, USDA

LEMONS, FRESH: PRODUCTION IN SELECTED  
NORTHERN HEMISPHERE COUNTRIES, 1973/74-1978/79  
(Thousand metric tons)

Country	Crop Year					
	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79 <sup>1/</sup>
Cyprus.....	42	18	20	30	30	24
Egypt.....	2	1	2	1	1	1
Greece.....	154	185	191	190	194	175
Israel.....	30	31	31	37	29	38
Italy.....	690	781	826	792	800	600
Morocco.....	2	7	5	2	3	8
Spain.....	206	161	296	220	313	239
Turkey.....	122	265	290	278	280	250
United States.....	613	1,014	608	896	900	758
Total.....	1,861	2,463	2,269	2,446	2,550	2,093

<sup>1/</sup> Preliminary.

SOURCE: U. S. Crop Reporting Board; ALL other countries, FAS Attache Reports.

January 1979

Commodity Programs, FAS, USDA

GRAPEFRUIT, FRESH: PRODUCTION IN SELECTED  
NORTHERN HEMISPHERE COUNTRIES, 1973/74-1978/79  
(Thousand metric tons)

Country	Crop Year						<u>1/</u>
	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	
Belize.....	16	19	15	8	11	4	
Cyprus.....	68	58	53	46	66	65	
Israel.....	388	403	449	491	456	470	
Jamaica.....	30	28	26	19	17	15	
Mexico <u>2/</u> .....	34	36	32	50	43	40	
Morocco.....	17	12	13	16	12	10	
Spain.....	6	5	7	7	7	9	
Turkey.....	7	12	12	13	22	20	
United States.....	2,442	2,271	2,586	2,751	2,721	2,624	
Total.....	3,008	2,844	3,193	3,401	3,355	3,257	

1/ Preliminary. 2/ States of Nuevo Leon, San Luis Potosi, Tamaulipas, and Veracruz only.

SOURCE: U. S., Crop Reporting Board; ALL other countries, FAS Attache Reports.

January 1979

Commodity Programs, FAS, USDA

CITRUS, FRESH: EXPORTS FROM SPECIFIED COUNTRIES  
SEASONS 1976/77 & 1977/78  
(1,000 metric tons)

COUNTRY	Oranges		Tangerines		Lemons		Grapefruit		Total	
	1976/77	1977/78	1976/77	1977/78	1976/77	1977/78	1976/77	1977/78	1976/77	1977/78
Cyprus <sup>1/</sup>	27.1	26.6	.9	.7	7.9	8.4	33.8	35.2	69.7	70.9
Egypt	195.0	130.0	1.0	1.0	---	---	.5	.5	196.5	131.5
Greece	210.8	197.1	4.8	4.5	75.9	100.1	---	---	291.5	301.7
Israel	651.3	621.0	---	---	19.3	15.3	256.8	251.3	927.4	887.6
Italy	248.8	139.5	21.5	11.8	234.3	178.7	---	---	504.6	330.0
Japan	---	---	20.0	22.0	---	---	---	---	20.0	22.0
Morocco	420.9	506.6	133.9	163.1	.1	.6	1.3	1.0	556.2	671.3
Spain	950.1	915.3	512.9	607.8	150.0	228.0	3.6	5.1	1,616.6	1,756.2
Turkey	28.6	10.2	30.1	24.2	77.1	92.1	7.0	7.0	142.8	133.5
United States	397.8	335.0	15.9	16.0	241.0	206.3	274.4	265.2	929.1	822.5
Total	3,130.4	2,881.3	741.0	851.1	805.6	829.5	577.4	565.3	5,254.4	5,127.2

---Denotes not available, unknown, or not applicable.

<sup>1/</sup> Greek sector of Cyprus only, no official data available for the Turkish sector.

SOURCE: FAS Attache Reports.

January 1979

Commodity Programs, FAS, USDA

ORANGES, FRESH: EXPORTS FROM UNITED STATES 1972/73-1977/78  
(Metric tons)

Country of Destination	Year beginning November 1					
	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
<u>EUROPE</u>						
<u>EC</u>						
Belgium-Luxembourg..	111	---	1,399	11,223	9,993	7,421
Denmark.....	2,693	868	2,119	1,135	1,061	154
France.....	5,182	8,539	18,711	11,844	9,128	2,418
Germany, Fed. Rep..	3,233	10,445	19,419	13,144	4,709	2,159
Ireland.....	---	---	67	---	---	---
Netherlands.....	22,588	20,608	62,482	41,120	30,036	19,974
United Kingdom.....	3,590	9,783	18,119	22,141	16,000	3,750
Total.....	37,397	50,243	122,316	100,607	70,927	35,876
<u>OTHER EUROPE</u>						
Finland.....	---	---	44	96	40	---
German, Dem. Rep...	---	4,162	21,466	8,857	393	---
Norway.....	601	954	1,980	1,345	1,726	1,505
Poland.....	561	857	1,363	---	---	---
Sweden.....	291	2,923	4,423	2,761	3,967	1,665
Switzerland.....	---	---	---	90	10	16
Other.....	---	3	---	7	---	51
Total.....	1,453	8,899	29,276	13,156	6,136	3,237
Total Europe.....	38,850	59,142	151,592	113,763	77,063	39,113
<u>LATIN AMERICA</u>						
Belize.....	---	---	---	---	---	93
Honduras.....	---	---	---	---	34	---
Mexico.....	71	46	287	831	579	275
Panama.....	12	26	20	17	12	10
Total.....	83	72	307	848	625	378
<u>BERMUDA &amp; CARIBBEAN</u>						
Bahamas.....	676	512	649	540	424	318
Barbados.....	43	2	---	---	---	3
Bermuda.....	167	123	107	142	138	222
Fr. West Indies....	2	---	11	53	51	108
Jamaica.....	---	18	415	59	---	---
Netherlands Antilles:	520	401	347	437	542	797
Other.....	14	---	---	11	40	60
Total.....	1,422	1,056	1,529	1,242	1,195	1,508

Continued.....

January 1979

Commodity Programs, FAS, USDA

Continued.....

ORANGES, FRESH: EXPORTS FROM UNITED STATES 1972/73-1977/78  
(Metric tons)

Country of Destination	Year beginning November 1					
	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
<u>OTHER COUNTRIES</u>						
Australia.....	---	412	41	---	16	32
Canada.....	129,161	143,985	169,451	176,566	169,845	150,009
China.....	---	---	---	---	---	---
Taiwan.....	16	33	34	---	35	729
French Pacific Is..	460	407	356	375	413	333
Hong Kong.....	76,807	68,723	93,710	97,329	99,188	81,081
Indonesia.....	263	918	1,573	3,083	2,827	1,901
Iran.....	---	---	10,593	---	---	---
Japan.....	15,771	19,734	22,902	24,870	22,443	43,521
Korea, Republic....	34	11	172	210	169	51
Malaysia.....	219	200	476	865	2,021	1,310
New Zealand.....	3,433	13,585	9,172	7,091	7,505	5,080
Other Pacific Is....	2	61	130	59	46	86
Philippines.....	104	---	26	5	4	---
Saudi Arabia.....	---	---	4,101	---	---	27
Singapore.....	5,478	3,715	11,205	13,802	14,272	9,697
Soviet Union.....	---	---	1,459	---	---	---
Trust Terr. Pac.Is.	18	25	27	25	69	58
Other.....	24	19	30	17	35	59
Total.....	231,790	251,828	325,458	324,297	318,888	293,974
Grand Total.....	272,145	312,098	478,886	440,150	397,771	334,973

---Denotes not available, unknown, or not applicable.

SOURCE: U.S. Bureau of Census.

TANGERINES, FRESH: EXPORTS FROM UNITED STATES 1972/73-1977/78  
(Metric tons)

Country of Destination	Year beginning November 1					
	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
<u>EUROPE</u>						
France.....	4	---	---	72	539	278
Germany, Fed. Rep..	---	---	---	513	89	50
Netherlands.....	---	---	119	1,333	1,038	238
Norway.....	---	---	---	---	41	---
Sweden.....	---	---	16	---	499	29
Switzerland.....	---	---	---	18	---	49
United Kingdom.....	115	---	---	---	19	15
Other.....	---	---	---	17	20	37
Total.....	119	---	135	1,953	2,245	696
<u>LATIN AMERICA</u>						
Mexico.....	28	23	23	8	10	---
Venezuela.....	---	---	---	---	---	17
Other.....	4	1	15	6	5	1
Total.....	32	24	38	14	15	18
<u>BERMUDA &amp; CARIBBEAN</u>						
Bahamas.....	32	131	167	91	80	193
Bermuda.....	27	27	35	36	31	41
Netherland Antilles:	2	12	10	42	12	264
Other.....	3	---	---	14	5	9
Total.....	64	170	212	183	128	507
<u>OTHER COUNTRIES</u>						
Canada.....	9,371	8,844	12,255	12,320	12,939	10,623
French Pacific Is..	92	56	27	50	58	6
Hong Kong.....	31	---	101	64	25	34
Japan.....	317	84	104	109	418	3,850
New Zealand.....	---	---	91	162	---	---
Singapore.....	---	---	---	6	41	35
Other.....	23	---	---	14	31	22
Total.....	9,834	8,984	12,578	12,725	13,512	14,570
Grand Total.....	10,049	9,178	12,963	14,875	15,900	15,791

---Denotes not available, unknown, or not applicable.

SOURCE: U.S. Bureau of Census.

January 1979

Commodity Programs, FAS, USDA

LEMONS, FRESH: EXPORTS FROM UNITED STATES 1972/73-1977/78  
(Metric tons)

Country of Destination	Year beginning August 1					
	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
<u>EUROPE</u>						
<u>EC</u>						
Belgium-Luxembourg..	751	306	441	4,369	8,843	6,163
Denmark.....	3,494	1,296	1,580	1,476	1,509	549
France.....	32,711	25,934	28,525	19,853	25,688	17,762
Germany, Fed. Rep..	8,013	7,966	14,699	8,465	3,298	1,213
Ireland.....	---	---	35	---	---	---
Italy.....	24	---	---	---	---	---
Netherlands.....	16,645	13,202	20,925	10,419	10,593	6,509
United Kingdom.....	1,460	2,586	2,631	3,573	5,692	2,987
Total.....	63,098	51,290	68,836	48,155	55,623	35,183
<u>OTHER EUROPE</u>						
Czechoslovakia.....	---	104	---	2,594	5,293	3,155
Finland.....	878	49	176	---	---	17
German, Dem. Rep..	5,039	4,596	1,390	5,160	8,153	3,237
Norway.....	1,885	595	890	492	741	794
Poland.....	6,340	7,579	13,577	12,865	24,486	18,823
Sweden.....	4,755	5,267	4,307	4,155	5,811	4,524
Switzerland.....	108	2	---	4	1	105
Yugoslavia.....	---	1,222	---	---	---	---
Total.....	19,005	19,414	20,340	25,270	44,485	30,655
Total Europe.....	82,103	70,704	89,176	73,425	100,108	65,838
<u>LATIN AMERICA</u>						
Mexico.....	160	615	658	1,061	638	668
Other.....	3	15	2	3	2	3
Total.....	163	630	660	1,064	640	671
<u>BERMUDA &amp; CARIBBEAN</u>						
Bahamas.....	74	81	84	87	122	149
Bermuda.....	47	78	58	93	72	77
Netherlands Antilles:	10	10	35	24	25	33
Other.....	7	19	---	---	---	20
Total.....	138	188	177	204	219	279

Continued.....

Continued.....

LEMONS, FRESH: EXPORTS FROM UNITED STATES 1972/73-1977/78  
(Metric tons)

Country of Destination	Year beginning August 1					
	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
<u>OTHER COUNTRIES</u>						
Australia.....	---	---	---	3	---	168
Canada.....	18,083	16,848	18,261	15,923	16,365	16,296
China						
Taiwan.....	9	---	9	9	---	146
Hong Kong.....	2,524	2,717	2,325	2,964	3,779	3,966
Indonesia.....	---	4	119	43	21	23
Iran.....	---	---	86	---	---	---
Israel.....	---	---	174	---	---	---
Japan.....	84,116	92,605	85,055	85,660	100,561	108,772
Korea, Republic....	8	---	13	50	3	5
Lebanon.....	---	260	---	---	---	---
New Zealand.....	156	286	323	1,686	436	314
Philippines.....	61	363	---	3	4	56
Saudi Arabia.....	---	---	---	---	---	172
Singapore.....	---	82	42	85	184	248
Soviet Union.....	5,178	4,257	9,686	8,670	17,789	9,367
Thailand.....	---	---	---	---	869	---
Other.....	---	8	2	2	19	16
Total	110,135	117,430	116,095	115,098	140,030	139,549
Grand Total.....	192,539	188,952	206,108	189,791	240,997	206,337

---Denotes not available, unknown, or not applicable.

SOURCE: U.S. Bureau of Census.

GRAPEFRUIT, FRESH: EXPORTS FROM UNITED STATES, 1972/73-1977/78  
(Metric tons)

Country of Destination	Year beginning September 1					
	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
<u>EUROPE</u>						
<u>EC</u>						
Belgium-Luxembourg..	185	185	869	2,039	289	1,207
Denmark.....	153	77	230	106	3	21
France.....	8,138	9,173	17,757	31,630	27,147	36,343
Germany, Fed. Rep..	1,847	1,353	2,637	6,422	2,452	5,267
Ireland.....	---	---	31	31		
Italy.....	1,344	254	60	885	1,041	389
Netherlands.....	11,158	11,194	12,570	28,175	30,195	34,541
United Kingdom.....	2,501	1,606	3,617	5,281	2,199	2,609
Total.....	25,326	23,842	37,771	74,569	63,326	80,377
<u>OTHER EUROPE</u>						
German Dem. Rep....	871	745	---	---	1,829	---
Norway.....	43	18	36	22	22	26
Poland.....	--	471	24	---	1,303	---
Sweden.....	220	487	547	978	818	804
Switzerland.....	---	190	508	704	666	402
Other.....	4	---	--	17	27	1
Total.....	1,138	1,911	1,115	1,721	4,665	1,233
Total Europe.....	26,464	25,753	38,886	76,290	67,991	81,610
<u>LATIN AMERICA</u>						
Mexico.....	95	41	105	174	220	148
Panama.....	---	---	---	---	---	441
Other.....	32	---	---	15	---	---
Total.....	127	41	105	189	220	589
<u>BERMUDA &amp; CARIBBEAN</u>						
Bahamas.....	181	156	142	249	60	101
Bermuda.....	34	32	17	20	19	23
Netherlands Antilles:	9	17	55	10	8	25
Other.....	12	---	---	---	---	---
Total.....	236	205	214	279	87	149

Continued.....

Continued.....

GRAPEFRUIT, FRESH: EXPORTS FROM UNITED STATES, 1972/73-1977/78  
(Metric tons)

Country of Destination	Year beginning September 1					
	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
<u>OTHER COUNTRIES</u>						
Australia.....	135	184	255	79	54	236
Canada.....	68,667	52,612	53,828	63,249	56,723	60,378
Hong Kong.....	323	265	279	410	420	429
Japan.....	95,815	154,761	133,242	143,789	147,990	121,102
New Zealand.....	350	924	700	432	750	555
Philippines.....	---	148	---	---	5	5
Singapore.....	6	110	120	147	124	93
Other.....	22	25	59	11	13	16
Total.....	165,318	209,029	188,483	208,117	206,079	182,814
Grand Total.....	192,145	235,028	227,688	284,875	274,377	265,162

---Denotes not available, unknown or not applicable.

SOURCE: U.S. Bureau of Census.

UNITED STATES DEPARTMENT OF AGRICULTURE  
WASHINGTON, D.C. 20250

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